STARTING $ALARIE$

of Chemists and Chemical Engineers

Analysis of the
American Chemical Society's
Survey of Graduates in
Chemistry and Chemical Engineering

1984

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1984 SURVEY REPORT

STARTING SALARIES AND EMPLOYMENT STATUS OF CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

This report was prepared by
ACS Statistical Services

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ACKNOWLEDGMENTS

Each year at the direction of its Committee on Economic Status, the American Chemical Society surveys chemistry and chemical engineering graduates to determine trends in starting salaries and employment status. Dr. Terrence Russell, Nguyen Bailey and Sandy Showgurow of ACS Statistical Services, managed by John Robert Jones, conducted this year's survey and prepared this report.

Robert K. Neuman, Head
Department of Professional Services

SUMMARY OF FINDINGS

SALARIES

After poor performances in 1982 and 1983, reported salaries for inexperienced BS chemists showed the largest increases since 1981 in both current and constant dollars. When compared against 1981 starting salaries, the change over the past three years is an increase of 7.6% in current dollars and a decrease of 5.9% adjusting for inflation.

Smaller percentage increases in the starting salaries of new chemists with advanced degrees placed those 1984 graduates at a disadvantage compared to the 1981 cohort. The small one year decline in starting salaries for MS holders is the most recent decrement in a total drop of 9.1% in current dollars for the three year period; a 22.6% decrease when adjusted for inflation. PhD starting salaries have performed much the same as those of BS graduates over the last three years: a small increase in current dollars (3.3%) and a decline in constant dollars (down 10.2%).

Table 1 shows average starting salaries paid to inexperienced chemistry graduates for 1983 and 1984, and gives additional information concerning the variation among individual salaries within each group. Table 2 presents corresponding information for chemical engineering graduates.

For inexperienced chemists, 1984 mean starting salaries were:

$18,681 for the BS, up 9.6%, or in constant dollars up 5.5%
$23,796 for the MS, down 0.9%, or in constant dollars down 5.0%
$32,075 for the PhD, up 1.5%, or in constant dollars down 2.6%

Chemical engineers continue to receive larger starting salaries than do chemists with similar degrees. Among chemical engineers the 1984 mean starting salaries were:

$26,259 for the BS, up 3.8%, or in constant dollars down 0.3%
$30,619 for the MS, up 7.8%, or in constant dollars up 3.7%
$38,947 for the PhD, up 6.8%, or in constant dollars up 2.7%

POST-GRADUATION EMPLOYMENT STATUS

Although starting salaries are somewhat higher than last year, the percent of 1983-84 graduates that were still looking for jobs at the time of this survey still remains high, showing declines for both chemists and chemical engineers only in relation to the severe employment situation of 1983.

Unemployment of recent BS graduates is less severe in chemistry this year than it is in chemical engineering, but even in chemistry the problem is worse than the figures in Table 3 seem to indicate. To understand the extent of unemployment among new chemistry graduates requires an additional calculation. Because unemployment is defined as a fraction of the labor

Table 1

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMISTRY GRADUATES

by Degree: Summer 1983 and Summer 1984

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1983	1984	1983	1984	1983	1984
90th Percentile	$22,500	$24,000	$32,800	$30,760	$36,882	$36,504
75th Percentile	20,000	21,600	28,625	28,550	35,000	35,500
50th Percentile	16,530	18,800	24,920	26,000	33,550	34,200
25th Percentile	14,000	16,000	17,000	18,300	29,281	31,000
10th Percentile	12,000	13,000	15,140	15,600	21,550	20,800
Mean	17,044	18,681	24,009	23,796	31,613	32,075
Count	174	274	26	25	70	107
Standard Deviation	4,325	4,435	6,787	5,906	5,644	5,824

Table 2

STARTING YEARLY SALARIES OF INEXPERIENCED FULL-TIME EMPLOYED CHEMICAL ENGINEERING GRADUATES

by Degree: Summer 1983 and Summer 1984

Salaries	DEGREE LEVEL					
	Bachelor's		Master's		Ph.D.	
	1983	1984	1983	1984	1983	1984
90th Percentile	$28,200	$29,100	$32,010	$32,420	$40,400	$40,400
75th Percentile	27,500	28,200	30,000	31,400	39,500	41,875
50th Percentile	26,100	27,000	29,250	30,300	38,000	39,950
25th Percentile	24,000	25,500	26,880	30,000	35,650	38,000
10th Percentile	20,000	21,488	24,994	28,900	26,000	30,300
Mean	25,281	26,259	28,392	30,619	36,476	38,947
Count	335	473	46	47	17	20
Standard Deviation	3,809	3,417	3,821	3,002	4,993	3,926

force, persons not seeking work (the majority of BS chemistry graduates) are neither employed nor unemployed. An accurate reading of unemployment requires removing two groups not seeking employment from the denominator of the unemployment rate: graduates who plan to attend graduate school and those not seeking full-time employment, most of whom plan to attend medical or other professional schools. Performing the calculation in this way yields larger unemployment rates among recipients of the bachelor's degree: 27% in chemistry and 24% in chemical engineering.

The recent history for unemployment calculated in this way is:

	1984	1983	1982	1981	1980
Chemical Engineering	24%	42%	26%	8%	6%
Chemistry	27	31	21	23	22

PLANS FOR ADVANCE STUDY and POSTDOCTORAL FELLOWSHIPS

In chemistry, postdoctoral fellows as a percent of new PhDs provides a rough indicator of demand. Because some of the new doctoral chemists who accept postdoctoral fellowships would have preferred full-time employment, an increase in the fraction accepting such fellowships indicates insufficient full-time employment. This year this measure of demand indicates that the climate is slightly less hospitable than it was last year: 37.9% accepted postdoctoral positions in 1984 as compared with 33.7% in 1983.

Bachelor's degree recipients' plans for advanced study are little different from those of last year's graduates. A summary of these plans appears in Tables 4 and 5.

CERTIFIED GRADUATES

"Certified graduates", i.e., graduates completing undergraduate chemistry programs approved by the ACS's Committee on Professional Training, generally received higher starting salaries than non-certified graduates (see Table A-10). One third of all BS chemistry graduates responding to the survey planned to study medicine. More than 73 percent of those studying medicine were non-certified (see table C-5). The unemployment rate for certified graduates was somewhat lower (12% versus 13%) than that for non-certified graduates.

CHARACTERISTICS OF DEGREE GRANTING INSTITUTIONS AND EMPLOYERS

The 1983 Starting Salaries survey began an attempt to account for the variation in salaries paid to new bachelor's degree recipients, primarily by analyzing salary differences according to the new graduates' academic performance and the size of their employers. In 1984 we have turned our attention to the characteristics of the degree granting institutions and expanded the classification of employers so that it is possible to separate out the smaller firms (less than 500 employees) that comprise the majority

Table 3

POSTGRADUATION STATUS OF CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES: SUMMER 1984

Major and Employment Status	Bachelor's	Master's	Doctorates
CHEMISTRY			
Full-time employed:			
In chemistry or chemical engineering	25.3%	43.8%	54.7%
Outside chemistry or chemical engineering	8.3	1.9	2.8
Postdoctoral/grad. asst./other fellowship	29.6	44.4	37.9
Unemployed and seeking full-time employment	12.4	5.0	3.2
Unemployed and not seeking full-time employment	20.0	3.1	0.7
No response	4.5	1.9	0.7
Total	100.0	100.0	100.0
Number of responses	1,592	160	285
CHEMICAL ENGINEERING			
Full-time employed:			
In chemistry or chemical engineering	49.1	54.4	75.0
Outside chemistry or chemical engineering	12.8	7.1	2.3
Postdoctoral/grad. asst./other fellowship	12.3	29.0	13.6
Unemployed and seeking full-time employment	20.1	4.1	2.3
Unemployed and not seeking full-time employment	4.3	3.0	0.0
No response	1.4	2.4	6.8
Total	100.0	100.0	100.0
Number of responses	1,231	169	44

Table 4

PLANS FOR FURTHER STUDY OF B.S. CHEMISTRY
AND CHEMICAL ENGINEERING GRADUATES: FALL 1984

Plans	Chemistry	Chemical Engineering
Further studies	66.0%	35.9%
Full-time	(54.6)	(19.1)
Part-time	(11.4)	(16.8)
Have no plans or no response	34.0	64.1
Total	100.0	100.0
Number of responses	1,592	1,231

Table 5

FIELDS OF STUDY OF B.S. CHEMISTRY AND
CHEMICAL ENGINEERING GRADUATES WHO PLAN FURTHER STUDIES
Fall 1983

Field of Study	Chemistry	Chemical Engineering
Full-time		
Chemistry or biochemistry	46.5%	4.5%
Chemical engineering	1.1	37.6
Medicine or dentistry	38.6	6.1
Business or management	1.6	22.9
All others	12.2	28.9
Total	100.0	100.0
Number of responses	870	235
Part-time		
Chemistry or biochemistry	42.5%	3.9%
Chemical engineering	4.4	21.7
Medicine or dentistry	5.6	1.5
Business or management	15.5	37.2
All others	33.0	35.7
Total	100.0	100.0
Number of responses	181	207

of chemical companies listed by Dun and Bradstreet (7,032 out 7,948: approximately 88%). These firms are the employers of 35% of the new employees with the BS in chemistry and 17% of the newly employed BS chemical engineers.

A complete analysis of these data will be available in the 1984-85 edition of Professionals in Chemistry. Preliminary findings are of some interest, suggesting different patterns for chemists and chemical engineers.

The type and size of the school from which new B.S. graduates received their degrees was more variable for chemists than for chemical engineers. Because graduates of some types of schools received higher starting salaries than others, variability had the effect of widening the range of chemists' starting salaries. Generally speaking, graduates received more if their degree was from a school that had one or more of the following characteristics: (a) large (b) granted graduate degrees and (c) was privately controlled.

The greater variability among chemists' median salaries is also seen in comparisons of employing firms ranked by the number of employees. The range of chemists' median salaries was 25% compared to a 17% range for the chemical engineers. As we noted above, proportionally more chemists than chemical engineers took employment in firms with less than 500 employees. Because those firms offered a lower median starting salary than larger ones, proportionally more chemists were clustered at the lower end of the salary range.

We suggest that these differences ought to be taken into account, along with more obvious ones, when comparing salaries.

SCOPE AND METHOD

OBJECTIVES

The 1984 Starting Salary Survey is the 33rd in the series of annual surveys now conducted by Statistical Services of the American Chemical Society. Summaries of the results of these surveys appear annually in the "Chemical Careers" edition of the Chemical and Engineering News, this year published on October 22.

The primary objective of the survey is to gather data on the starting salaries and occupational status of new chemists and chemical engineers who graduated during the 1983-84 academic year. The survey covers bachelor's, master's, and doctoral degree recipients. In addition, the survey provides information on graduates' sex, citizenship, and ethnicity.

METHOD OF COLLECTION AND TIMING OF SURVEY

Chemistry departments approved by the ACS and chemical engineering departments approved by the American Institute of Chemical Engineers and the Engineer's Council for Professional Development provided names and addresses of students that had graduated between September, 1983 and June, 1984. During the summer of 1984, ACS Statistical Services mailed questionnaires to those graduates who had U.S. addresses. Summer 1983 graduates were excluded from the mailing because many of them had twelve months' experience by the time the survey was conducted.

EXTENT OF COVERAGE

Survey questionnaires were mailed between July and September to approximately 13,900 graduates. By the cutoff date of September 28, Statistical Services had received 3,768 usable responses.

The table below contains ACS estimates of the numbers of chemistry and chemical engineering graduates in the 1983-84 academic year.

Projected Numbers of Degrees in Chemistry and in Chemical Engineering, 1983-84

	Bachelors	Masters	Doctorate
Chemistry	11,900	1,740	1,720
Chemical Engineering	7,190	1,460	325

The survey respondents represent about 13.3 percent of all 1983-84 chemistry graduates and about 16.1 percent of the chemical engineering graduates. No attempt was made to examine the characteristics of graduates from departments that did not participate in the survey or of those graduates who did not mail back completed questionnaires.

DEFINITIONS

The questionnaire appears at the end of this report. Responses to questions on post-graduation status were edited to eliminate multiple responses and to reflect as accurately as possible the employment status of the respondent.

The term "inexperienced" as used in the tables refers to those who have 12 months or less of prior professional work experience. Salary tables are based only on salaries of those who found full-time employment in chemistry or chemical engineering. Postdoctoral salaries are analyzed separately. Salaries are reported in U.S. dollars.

The Technical Notes present methods for estimating sampling error and also explain certain discrepancies among some of the tables.

GEOGRAPHIC REGIONS

PACIFIC

- Alaska
- California
- Hawaii
- Oregon
- Washington

MOUNTAIN

- Arizona
- Colorado
- Idaho
- Montana
- Nevada
- New Mexico
- Utah
- Wyoming

WEST NORTH CENTRAL

- Iowa
- Kansas
- Minnesota
- Missouri
- Nebraska
- North Dakota
- South Dakota

WEST SOUTH CENTRAL

- Arkansas
- Louisiana
- Oklahoma
- Texas

EAST NORTH CENTRAL

- Illinois
- Indiana
- Michigan
- Ohio
- Wisconsin

EAST SOUTH CENTRAL

- Alabama
- Kentucky
- Mississippi
- Tennessee

MIDDLE ATLANTIC

- New Jersey
- New York
- Pennsylvania

SOUTH ATLANTIC

- Delaware
- District of Columbia
- Florida
- Georgia
- Maryland
- North Carolina
- South Carolina
- Virginia
- West Virginia

NEW ENGLAND

- Connecticut
- Maine
- Massachusetts
- New Hampshire
- Rhode Island
- Vermont

TECHNICAL NOTES

DISCREPANCIES AMONG TABLES

Because not all individuals responded to all of the questionnaire items, some pairs of tables contain totals that should be identical but are not. For example, one table may group PhDs according to sex and another according to geographic region. The totals will differ unless the number who did not indicate their sex is the same as the number who did not indicate their geographic region.

ESTIMATES OF MEDIAN SALARIES

Median salaries displayed within the cells of the salary tables are sample medians and are therefore subject to sampling error. This error may be quite large, especially when the number of respondents in the corresponding cell is small. Therefore, median salaries in cells with fewer than 15 respondents should not be used to estimate their corresponding population medians. Similarly, tables showing the 25th and 75th salary percentiles, and those showing the 10th and 90th salary percentiles, should have at least 25 respondents and 40 respondents respectively.

COMPARING SALARIES

Often questions arise concerning women's salaries as compared with men's, or chemists' salaries as compared with chemical engineers'. These and similar comparisons require caution.

Statistical tests should be performed to determine whether observed differences in salaries of various sample groups could be mere chance occurrences resulting from peculiarities of the samples. Whether a difference in salaries is "statistically significant" depends not only on the magnitude of the difference but also on the sample sizes and the magnitudes of the sample standard deviations.

Statistical tests of significance may be found in Numerical and Statistical Techniques, by J. H. Pollard, Handbook of Tables for Probability and Statistics, published by the Chemical Rubber Company, and in other similar texts.

ESTIMATING SAMPLING ERROR FOR PERCENTS

Percents in this report are derived from the sample. If the entire population had received and returned questionnaires, most estimates would be somewhat different. How much different? Although this question does not have an exact answer, the table below does provide some guidance. To use the table, find the column headed by the percent (p) derived from the sample, and find the row appropriate for the sample size (n). (Approximations for p and n may be used.) Note the number in that column and that row of the table.

This number from the body of the table measures the precision with which the sample percent estimates the percent of the entire population. Specifically, if this procedure is applied repeatedly, about 95 times out of 100, the population percent will differ from the sample percent by no more than the amount shown in the table.

Approximate Sampling Errors for Percents

n	p= 10% or 90%	p= 20% or 80%	p= 30% or 70%	p=40% or 60%	p= 50%
50	8.3%	11.1%	12.7%	13.6%	13.9%
100	5.9	7.8	9.0	9.6	9.8
200	4.2	5.5	6.4	6.8	6.9
500	2.6	3.5	4.0	4.3	4.4
1000	1.9	2.5	2.8	3.0	3.1
2000	1.3	1.8	2.0	2.1	2.2
5000	0.8	1.1	1.3	1.4	1.4
10000	0.6	0.8	0.9	1.0	1.0

In Table B-1 for example, 156 respondents classified as chemists indicated their highest degree as PhD, and their employment status as employed full-time in chemistry or chemical engineering. The percent of this group who are women is listed at 19.2 percent (p=19.2). A "95% confidence interval" for this percent may be approximated by taking n and p to be about 100 and 20%. The table shows an approximate sampling error of 7.8%. Hence, the 95% confidence interval is 11.4% to 27.0%. If 100 similar estimates were made at this "level of confidence," about 95 of the true population percents would be contained in their respective intervals.

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TABLE A-1

SALARIES of FULL-TIME CHEMISTS by Experience and Degree
1984 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 Months	18,800	26,000	34,200	17,750	21,000	- Median
	18,681	23,796	32,075	21,190	22,494	- Mean
	4,435	5,906	5,824	9,533	7,682	- Std Dev
	274	25	107	10	416	- Count
12-36 Months	20,000	24,000	34,000	23,000	22,000	
	19,598	24,050	33,676	23,000	22,773	
	4,459	2,934	5,069	---	7,015	
	77	12	21	1	111	
>36 Months	22,500	26,820	32,000	22,000	25,000	
	21,460	28,639	29,847	22,000	25,998	
	5,225	6,260	8,211	---	7,294	
	31	30	17	1	79	
No Response	17,500	28,000	35,000	---	29,000	
	17,500	28,000	32,400	---	28,125	
	6,364	---	8,742	---	9,735	
	2	1	5	0	8	
TOTAL	19,432	26,000	34,100	19,500	21,500	
	19,083	26,039	32,058	21,408	23,068	
	4,566	6,045	6,148	8,641	7,636	
	384	68	150	12	614	

TABLE A-2

SALARIES of FULL-TIME CHEMICAL ENGINEERS by Experience and Degree
1984 Starting Salary Survey

PROFESSIONAL EXPERIENCE	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
<12 Months	27,000	30,300	39,950	24,440	27,600	- Median
	26,259	30,619	38,947	24,899	27,033	- Mean
	3,417	3,002	3,926	5,090	4,337	- Std Dev
	473	47	20	19	559	- Count
12-36 Months	28,000	30,000	40,300	27,920	28,000	
	26,922	29,748	40,200	24,965	28,119	
	3,626	2,947	3,315	8,110	4,790	
	107	27	8	4	146	
>36 Months	26,000	34,800	38,000	24,150	30,000	
	24,647	34,007	38,300	24,150	30,259	
	4,947	5,825	5,450	3,606	7,510	
	15	15	5	2	37	
No Response	28,400	30,250	---	---	29,400	
	28,400	30,250	---	---	29,325	
	566	354	---	---	1,135	
	2	2	0	0	4	
TOTAL	27,300	30,360	40,000	25,000	27,800	
	26,345	30,911	39,153	24,850	27,418	
	3,509	3,801	3,960	5,314	4,681	
	597	91	33	25	746	

TABLE A-3

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS in PRIVATE INDUSTRY by Sex and Degree
1984 Starting Salary Survey

	HIGHEST DEGREE					
SEX	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	20,000	26,400	35,000	29,200	23,000	- Median
	19,534	26,059	34,445	28,500	25,148	- Mean
	3,834	4,056	2,231	11,760	7,817	- Std Dev
	107	12	62	4	185	- Count
Women	20,000	26,000	34,800	17,750	20,500	
	19,583	25,667	34,186	17,875	21,353	
	3,589	3,512	1,697	1,931	5,812	
	101	3	14	4	122	
TOTAL	20,000	26,400	34,900	19,500	21,500	
	19,558	25,980	34,397	23,188	23,640	
	3,708	3,836	2,135	9,650	7,319	
	208	15	76	8	307	

TABLE A-4

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS in PRIVATE INDUSTRY by Sex and Degree
1984 Starting Salary Survey

	HIGHEST DEGREE					
SEX	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Men	27,300	30,200	40,000	24,440	27,600	- Median
	26,466	30,621	39,916	25,622	27,446	- Mean
	3,285	3,382	2,614	5,579	4,481	- Std Dev
	280	35	15	13	343	- Count
Women	27,690	30,925	40,000	25,000	27,980	
	27,090	30,495	40,000	24,667	27,341	
	2,770	1,561	---	1,528	3,002	
	144	10	1	3	158	
TOTAL	27,500	30,300	40,000	24,720	27,660	
	26,678	30,593	39,921	25,443	27,413	
	3,131	3,056	2,526	5,036	4,070	
	424	45	16	16	501	

TABLE A-5

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Sex
1984 Starting Salary Survey

	SEX			
HIGHEST DEGREE	Men	Women	TOTAL	
Bachelors	19,000	18,500	18,800	- Median
	18,712	18,648	18,681	- Mean
	4,284	4,606	4,435	- Std Dev
	141	133	274	- Count
Masters	26,400	20,500	26,000	
	24,627	21,167	23,796	
	5,906	5,565	5,906	
	19	6	25	
Doctorate	34,350	33,600	34,200	
	32,245	31,456	32,075	
	5,543	6,855	5,824	
	84	23	107	
No Response	21,000	16,500	17,750	
	25,800	16,580	21,190	
	11,840	3,344	9,533	
	5	5	10	
TOTAL	22,000	19,104	21,000	
	23,871	20,440	22,494	
	8,028	6,645	7,682	
	249	167	416	

TABLE A-6

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	20,000	26,400	34,900	19,500	21,500	- Median
	19,558	25,980	34,397	23,188	23,640	- Mean
	3,708	3,836	2,135	9,650	7,319	- Std Dev
	208	15	76	8	307	- Count
College or University	12,500	15,500	20,000	---	17,650	
	15,280	15,300	20,606	---	18,123	
	10,161	2,094	4,258	---	7,011	
	10	4	16	0	30	
High School	12,500	19,000	---	11,400	12,500	
	12,336	19,000	---	11,400	12,777	
	2,398	---	---	---	2,890	
	11	1	0	1	13	
Government	16,000	31,000	30,000	---	22,000	
	16,286	31,000	30,478	---	23,429	
	3,226	3,394	6,738	---	8,734	
	11	2	9	0	22	
Military	16,000	---	---	---	16,000	
	16,000	---	---	---	16,000	
	2,828	---	---	---	2,828	
	2	0	0	0	2	
Hospital or Laboratory	16,000	17,000	---	---	16,320	
	16,060	17,000	---	---	16,127	
	4,730	---	---	---	4,552	
	13	1	0	0	14	
Other	17,500	23,000	36,000	15,000	18,500	
	18,002	23,000	35,780	15,000	21,554	
	3,819	8,485	1,006	---	7,935	
	19	2	5	1	27	
No Response	---	---	35,000	---	35,000	
	---	---	35,000	---	35,000	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	18,800	26,000	34,200	17,750	21,000	
	18,681	23,796	32,075	21,190	22,494	
	4,435	5,906	5,824	9,533	7,682	
	274	25	107	10	416	

TABLE A-7

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Men
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	20,000	26,400	35,000	29,200	23,000	- Median
	19,534	26,059	34,445	28,500	25,148	- Mean
	3,834	4,056	2,231	11,760	7,817	- Std Dev
	107	12	62	4	185	- Count
College or University	10,700	15,100	21,000	---	20,000	
	10,350	15,100	21,592	---	18,542	
	1,700	3,536	4,081	---	5,936	
	4	2	13	0	19	
High School	12,000	---	---	---	12,000	
	12,110	---	---	---	12,110	
	2,167	---	---	---	2,167	
	3	0	0	0	3	
Government	17,221	31,000	30,000	---	22,000	
	17,740	31,000	29,800	---	24,419	
	3,600	3,394	6,870	---	7,980	
	6	2	5	0	13	
Military	16,000	---	---	---	16,000	
	16,000	---	---	---	16,000	
	2,828	---	---	---	2,828	
	2	0	0	0	2	
Hospital or Laboratory	16,640	17,000	---	---	16,820	
	17,016	17,000	---	---	17,014	
	5,378	---	---	---	5,070	
	9	1	0	0	10	
Other	17,750	23,000	36,000	15,000	18,500	
	17,890	23,000	36,100	15,000	21,763	
	4,132	8,485	656	---	8,334	
	10	2	3	1	16	
No Response	---	---	35,000	---	35,000	
	---	---	35,000	---	35,000	
	---	---	---	---	---	
	0	0	1	0	1	
TOTAL	19,000	26,400	34,350	21,000	22,000	
	18,712	24,627	32,245	25,800	23,871	
	4,284	5,906	5,543	11,840	8,028	
	141	19	84	5	249	

TABLE A-8

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Employer - Women
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	20,000	26,000	34,800	17,750	20,500	- Median
	19,583	25,667	34,186	17,875	21,353	- Mean
	3,589	3,512	1,697	1,931	5,812	- Std Dev
	101	3	14	4	122	- Count
College or University	13,750	15,500	16,000	---	15,000	
	18,567	15,500	16,333	---	17,400	
	12,316	707	1,528	---	8,845	
	6	2	3	0	11	
High School	13,250	19,000	---	11,400	13,250	
	12,421	19,000	---	11,400	12,977	
	2,616	---	---	---	3,147	
	8	1	0	1	10	
Government	13,600	---	29,200	---	16,700	
	14,540	---	31,325	---	22,000	
	1,685	---	7,510	---	10,041	
	5	0	4	0	9	
Military	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Hospital or Laboratory	13,250	---	---	---	13,250	
	13,910	---	---	---	13,910	
	1,865	---	---	---	1,865	
	4	0	0	0	4	
Other	16,800	---	35,300	---	18,500	
	18,127	---	35,300	---	21,250	
	3,684	---	1,556	---	7,704	
	9	0	2	0	11	
TOTAL	18,500	20,500	33,600	16,500	19,104	
	18,648	21,167	31,456	16,580	20,440	
	4,606	5,565	6,855	3,344	6,645	
	133	6	23	5	167	

TABLE A-9

SALARIES of INEXPERIENCED FULL-TIME CHEMISTS by Degree and Geographic Region
1984 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Pacific	19,500	---	34,000	11,400	21,000	- Median
	19,190	---	32,529	11,400	23,944	- Mean
	3,987	---	5,587	---	8,505	- Std Dev
	10	0	7	1	18	- Count
Mountain	16,400	26,700	36,400	16,500	21,502	
	16,181	26,700	34,644	16,500	22,804	
	7,040	---	7,913	---	10,637	
	5	1	3	1	10	
West North Central	20,000	17,600	35,000	38,500	22,000	
	18,596	17,600	33,843	38,500	3,447	
	4,767	---	5,225	1,556	8,930	
	20	1	7	2	30	
West South Central	18,550	26,400	34,000	---	24,000	
	18,707	26,400	32,678	---	23,933	
	5,120	0	6,858	---	8,564	
	16	2	9	0	27	
East North Central	20,000	25,000	34,000	---	21,000	
	19,489	23,000	31,795	---	22,560	
	3,310	5,244	6,117	---	6,649	
	67	6	22	0	95	
East South Central	18,650	19,000	32,000	---	18,000	
	17,844	21,667	31,467	---	20,223	
	4,103	10,653	1,286	---	6,757	
	16	3	3	0	22	
Middle Atlantic	19,678	29,000	34,800	16,000	21,500	
	19,005	26,315	32,384	16,667	22,736	
	4,479	5,759	5,012	2,082	7,473	
	82	7	31	3	123	
South Atlantic	16,250	24,000	34,500	20,000	19,000	
	17,074	22,120	31,333	19,000	21,992	
	4,079	5,863	6,703	2,646	8,226	
	42	5	23	3	73	
New England	17,450	---	25,500	---	19,000	
	17,632	---	25,500	---	18,558	
	2,639	---	7,778	---	4,087	
	15	0	2	0	17	
No Response	43,200	---	---	---	43,200	
	43,200	---	---	---	43,200	
	---	---	---	---	---	
	1	0	0	0	1	
TOTAL	18,800	26,000	34,200	17,750	21,000	
	18,681	23,796	32,075	21,190	22,494	
	4,435	5,906	5,824	9,533	7,682	
	274	25	107	10	416	

TABLE A-10

SALARIES of INEXPERIENCED FULL-TIME B.S. CHEMISTS by Employer and Certification Status
1984 Starting Salary Survey

EMPLOYER	CERTIFICATION: Certified	CERTIFICATION: Non-Cert.	TOTAL	
Private Industry	20,000	18,800	20,000	- Median
	19,982	18,965	19,577	- Mean
	3,397	4,401	3,852	- Std Dev
	139	92	231	- Count
College or University	12,750	12,700	12,750	
	17,267	12,488	14,536	
	12,760	2,947	8,563	
	6	8	14	
High School	14,400	12,550	13,550	
	14,461	12,611	13,228	
	5,032	1,927	3,264	
	6	12	18	
Government	16,000	17,221	16,350	
	15,989	17,244	16,512	
	3,149	3,419	3,174	
	7	5	12	
Military	18,000	19,750	18,000	
	17,371	19,563	18,540	
	2,787	1,917	2,539	
	7	8	15	
Hospital or Laboratory	16,640	13,000	15,000	
	16,822	14,951	15,753	
	4,906	5,672	5,313	
	9	12	21	
Other	16,000	17,150	16,800	
	17,053	19,172	18,031	
	4,342	7,790	6,182	
	21	18	39	
TOTAL	20,000	18,000	18,550	
	19,031	17,827	18,498	
	4,361	5,193	4,778	
	195	155	350	

TABLE A-11

SALARIES of INEXPERIENCED FULL-TIME M.S. and Ph.D. CHEMISTS by Degree Field
1984 Starting Salary Survey

DEGREE FIELD	HIGHEST DEGREE M.S.	Ph.D.	TOTAL
Chemistry	28,500	28,500	28,500 - Median
	25,633	27,025	26,429 - Mean
	9,529	9,585	8,761 - Std Dev
	3	4	7 - Count
Biochemistry	---	---	---
	---	---	---
	---	---	---
	0	0	0
Agricultural	---	---	---
	---	---	---
	---	---	---
	0	0	0
Analytical	25,000	34,000	32,500
	23,350	31,343	29,690
	4,953	6,006	6,602
	6	23	29
Inorganic	20,000	34,000	33,800
	18,667	33,506	31,651
	2,309	4,852	6,787
	3	21	24
Organic	26,200	34,800	33,000
	24,530	31,702	30,176
	6,267	6,498	7,038
	10	37	47
Pharmaceutical	---	---	---
	---	---	---
	---	---	---
	0	0	0
Physical	29,000	34,000	33,000
	29,000	33,042	32,804
	---	4,304	4,281
	1	16	17
Thecretical	---	26,000	26,000
	---	26,000	26,000
	---	---	---
	0	1	1
Polymer	28,600	36,000	32,300
	28,600	36,000	32,300
	---	---	5,233
	1	1	2
Chemistry, Other	19,000	34,400	34,000
	19,000	33,950	30,960
	---	2,132	6,936
	1	4	5
TOTAL	26,000	34,200	33,000
	23,796	32,075	30,507
	5,906	5,824	6,666
	25	107	132

TABLE A-12

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Sex
1984 Starting Salary Survey

	SEX			
HIGHEST DEGREE	Men	Women	TOTAL	
Bachelors	27,000	27,500	27,000	- Median
	26,095	26,569	26,259	- Mean
	3,534	3,173	3,417	- Std Dev
	309	164	473	- Count
Masters	30,200	30,925	30,300	
	30,652	30,495	30,619	
	3,302	1,561	3,002	
	37	10	47	
Doctorate	39,900	40,000	39,950	
	38,892	40,000	38,947	
	4,026	---	3,926	
	19	1	20	
No Response	24,220	25,000	24,440	
	24,943	24,667	24,899	
	5,547	1,528	5,090	
	16	3	19	
TOTAL	27,500	27,600	27,600	
	27,127	26,833	27,033	
	4,726	3,362	4,337	
	381	178	559	

TABLE A-13

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	27,500	30,300	40,000	24,720	27,660	- Median
	26,678	30,593	39,921	25,443	27,413	- Mean
	3,131	3,056	2,526	5,036	4,070	- Std Dev
	424	45	16	16	501	- Count
College or University	---	---	37,000	---	37,000	
	---	---	36,733	---	36,733	
	---	---	6,604	---	6,604	
	0	0	3	0	3	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,527	30,000	30,000	18,000	21,527	
	22,381	30,000	30,000	18,000	22,674	
	3,390	---	---	---	3,769	
	34	1	1	1	37	
Military	26,750	---	---	---	26,750	
	24,880	---	---	---	24,880	
	4,630	---	---	---	4,630	
	4	0	0	0	4	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	24,000	---	---	20,000	24,000	
	22,880	---	---	20,000	22,618	
	4,406	---	---	---	4,269	
	10	0	0	1	11	
No Response	20,000	32,400	---	28,000	28,000	
	20,000	32,400	---	28,000	26,800	
	---	---	---	---	6,286	
	1	1	0	1	3	
TOTAL	27,000	30,300	39,950	24,440	27,600	
	26,259	30,619	38,947	24,899	27,033	
	3,417	3,002	3,926	5,090	4,337	
	473	47	20	19	559	

TABLE A-14

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Men
1984 Starting Salary Survey

EMPLOYER	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	27,300	30,200	40,000	24,440	27,600	- Median
	26,466	30,621	39,916	25,622	27,446	- Mean
	3,285	3,382	2,614	5,579	4,481	- Std Dev
	280	35	15	13	343	- Count
College or University	---	---	37,000	---	37,000	
	---	---	36,733	---	36,733	
	---	---	6,604	---	6,604	
	0	0	3	0	3	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,527	30,000	30,000	18,000	21,527	
	22,196	30,000	30,000	18,000	22,739	
	3,242	---	---	---	3,949	
	18	1	1	1	21	
Military	26,750	---	---	---	26,750	
	24,880	---	---	---	24,880	
	4,630	---	---	---	4,630	
	4	0	0	0	4	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	22,900	---	---	20,000	20,000	
	22,317	---	---	20,000	21,986	
	5,496	---	---	---	5,093	
	6	0	0	1	7	
No Response	20,000	32,400	---	28,000	28,000	
	20,000	32,400	---	28,000	26,800	
	---	---	---	---	6,286	
	1	1	0	1	3	
TOTAL	27,000	30,200	39,900	24,220	27,500	
	26,095	30,652	38,892	24,943	27,127	
	3,534	3,302	4,026	5,547	4,726	
	309	37	19	16	381	

TABLE A-15

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Degree and Employer - Women
1984 Starting Salary Survey

	HIGHEST DEGREE					
EMPLOYER	B.S.	M.S.	Ph.D.	No Response	TOTAL	
Private Industry	27,690	30,925	40,000	25,000	27,980	- Median
	27,090	30,495	40,000	24,667	27,341	- Mean
	2,770	1,561	---	1,528	3,002	- Std Dev
	144	10	1	3	158	- Count
College or University	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
High School	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Government	21,764	---	---	---	21,764	
	22,589	---	---	---	22,589	
	3,645	---	---	---	3,645	
	16	0	0	0	16	
Military	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Hospital or Laboratory	---	---	---	---	---	
	---	---	---	---	---	
	---	---	---	---	---	
	0	0	0	0	0	
Other	24,000	---	---	---	24,000	
	23,725	---	---	---	23,725	
	2,510	---	---	---	2,510	
	4	0	0	0	4	
TOTAL	27,500	30,925	40,000	25,000	27,600	
	26,569	30,495	40,000	24,667	26,833	
	3,173	1,561	---	1,528	3,362	
	164	10	1	3	178	

TABLE A-16

SALARIES of INEXPERIENCED FULL-TIME CHEMICAL ENGINEERS by Geographic Region and Degree
1984 Starting Salary Survey

GEOGRAPHIC REGION	HIGHEST DEGREE B.S.	M.S	Ph.D.	No Response	TOTAL	
Pacific	27,000	31,000	41,500	34,500	28,000	- Median
	26,550	30,928	41,900	34,500	28,799	- Mean
	3,319	984	1,153	9,192	5,160	- Std Dev
	32	10	3	2	47	- Count
Mountain	27,000	30,000	---	---	27,500	
	27,366	30,000	---	---	27,554	
	2,306	---	---	---	2,325	
	13	1	0	0	14	
West North Central	27,000	30,000	---	24,000	27,590	
	26,276	31,980	---	24,000	27,048	
	3,815	4,851	---	---	4,386	
	28	5	0	1	34	
West South Central	27,980	30,900	39,600	24,500	28,000	
	27,293	31,440	40,067	24,435	27,843	
	2,870	2,317	3,325	3,773	3,922	
	68	4	3	4	79	
East North Central	27,600	31,000	38,000	25,000	27,900	
	26,666	31,025	35,667	24,933	27,058	
	3,070	1,184	4,933	2,901	3,512	
	90	4	3	3	100	
East South Central	27,180	29,450	---	25,720	27,180	
	27,059	29,450	---	25,720	27,137	
	1,436	2,192	---	1,810	1,621	
	23	2	0	2	27	
Middle Atlantic	27,000	30,200	40,000	22,000	27,520	
	25,638	29,905	38,420	23,020	26,495	
	4,091	4,314	4,998	3,964	4,949	
	109	15	5	5	134	
South Atlantic	27,000	30,180	39,950	18,000	27,000	
	25,769	30,427	38,990	18,000	26,899	
	3,195	544	3,343	---	4,722	
	75	6	6	1	88	
New England	26,400	---	---	23,000	26,250	
	25,564	---	---	23,000	25,489	
	2,868	---	---	---	2,858	
	33	0	0	1	34	
No Response	15,250	---	---	---	15,250	
	15,250	---	---	---	15,250	
	3,182	---	---	---	3,182	
	2	0	0	0	2	
TOTAL	27,000	30,300	39,950	24,440	27,600	
	26,259	30,619	38,947	24,899	27,033	
	3,417	3,002	3,926	5,090	4,337	
	473	47	20	19	559	

TABLE B-1

EMPLOYMENT STATUS of CHEMISTRY GRADUATES by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
EMPLOYMENT STATUS	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Full-time in Chemistry	213	190	0	403	46	24	0	70	126	30	0	156	-Count
	52.9%	47.1%	0.0%	100.0%	65.7%	34.3%	0.0%	100.0%	80.8%	19.2%	0.0%	100.0%	-% of Row
	21.4%	31.9%	0.0%	25.3%	45.5%	40.7%	***.*%	43.8%	55.5%	51.7%	***.*%	54.7%	-% of Col
Full-time in Non-Chemistry	85	47	0	132	3	0	0	3	7	1	0	8	
	64.4%	35.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	87.5%	12.5%	0.0%	100.0%	
	8.5%	7.9%	0.0%	8.3%	3.0%	0.0%	***.*%	1.9%	3.1%	1.7%	***.*%	2.8%	
Assistantship, Postdoctoral, or Other Fellowship	323	148	0	471	45	26	0	71	87	21	0	108	
	68.6%	31.4%	0.0%	100.0%	63.4%	36.6%	0.0%	100.0%	80.6%	19.4%	0.0%	100.0%	
	32.5%	24.9%	0.0%	29.6%	44.6%	44.1%	***.*%	44.4%	38.3%	36.2%	***.*%	37.9%	
Unemployed and Seeking Employment	102	94	1	197	5	3	0	8	4	5	0	9	
	51.8%	47.7%	0.5%	100.0%	62.5%	37.5%	0.0%	100.0%	44.4%	55.6%	0.0%	100.0%	
	10.3%	15.8%	50.0%	12.4%	5.0%	5.1%	***.*%	5.0%	1.8%	8.6%	***.*%	3.2%	
Unemployed and Not Seeking Employment	217	100	1	318	2	3	0	5	1	1	0	2	
	68.2%	31.4%	0.3%	100.0%	40.0%	60.0%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	
	21.8%	16.8%	50.0%	20.0%	2.0%	5.1%	***.*%	3.1%	0.4%	1.7%	***.*%	0.7%	
No Response	55	16	0	71	0	3	0	3	2	0	0	2	
	77.5%	22.5%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	5.5%	2.7%	0.0%	4.5%	0.0%	5.1%	***.*%	1.9%	0.9%	0.0%	***.*%	0.7%	
TOTAL	995	595	2	1,592	101	59	0	160	227	58	0	285	
	62.5%	37.4%	0.1%	100.0%	63.1%	36.9%	0.0%	100.0%	79.6%	20.4%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	
ADVANCED STUDY PLANS FALL 1984													
Full-time	606	263	1	870	44	28	0	72	25	3	0	28	
	69.7%	30.2%	0.1%	100.0%	61.1%	38.9%	0.0%	100.0%	89.3%	10.7%	0.0%	100.0%	
	60.9%	44.2%	50.0%	54.6%	43.6%	47.5%	***.*%	45.0%	11.0%	5.2%	***.*%	9.8%	
Part-time	105	76	0	181	9	3	0	12	6	2	0	8	
	58.0%	42.0%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	10.6%	12.8%	0.0%	11.4%	8.9%	5.1%	***.*%	7.5%	2.6%	3.4%	***.*%	2.8%	
No Plans	282	255	1	538	47	28	0	75	191	52	0	243	
	52.4%	47.4%	0.2%	100.0%	62.7%	37.3%	0.0%	100.0%	78.6%	21.4%	0.0%	100.0%	
	28.3%	42.9%	50.0%	33.8%	46.5%	47.5%	***.*%	46.9%	84.1%	89.7%	***.*%	85.3%	
No Response	2	1	0	3	1	0	0	1	5	1	0	6	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	83.3%	16.7%	0.0%	100.0%	
	0.2%	0.2%	0.0%	0.2%	1.0%	0.0%	***.*%	0.6%	2.2%	1.7%	***.*%	2.1%	
TOTAL	995	595	2	1,592	101	59	0	160	227	58	0	285	
	62.5%	37.4%	0.1%	100.0%	63.1%	36.9%	0.0%	100.0%	79.6%	20.4%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE B-2

EMPLOYMENT STATUS of CHEMISTRY GRADUATES by Citizenship and Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	Bachelors CITIZENSHIP					Masters					Doctorate				
	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL	US Citizen	Permanent Resident	Other	No Response	TOTAL
Full-time in Chemistry	394	6	3	0	403	65	3	2	0	70	145	7	4	0	156
	97.8%	1.5%	0.7%	0.0%	100.0%	92.9%	4.3%	2.9%	0.0%	100.0%	92.9%	4.5%	2.6%	0.0%	100.0%
	25.6%	18.2%	17.6%	0.0%	25.3%	46.1%	75.0%	13.3%	***.*%	43.8%	57.1%	63.6%	21.1%	0.0%	54.7%
Full-time in Non-Chemistry	127	4	1	0	132	3	0	0	0	3	7	0	1	0	8
	96.2%	3.0%	0.8%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	87.5%	0.0%	12.5%	0.0%	100.0%
	8.2%	12.1%	5.9%	0.0%	8.3%	2.1%	0.0%	0.0%	***.*%	1.9%	2.8%	0.0%	5.3%	0.0%	2.8%
Assistantship, Postdoctoral, or Other Fellowship	455	7	9	0	471	59	1	11	0	71	91	3	13	1	108
	96.6%	1.5%	1.9%	0.0%	100.0%	83.1%	1.4%	15.5%	0.0%	100.0%	84.3%	2.8%	12.0%	0.9%	100.0%
	29.5%	21.2%	52.9%	0.0%	29.6%	41.8%	25.0%	73.3%	***.*%	44.4%	35.8%	27.3%	68.4%	100.0%	37.9%
Unemployed and Seeking Employment	188	8	0	1	197	8	0	0	0	8	8	1	0	0	9
	95.4%	4.1%	0.0%	0.5%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	88.9%	11.1%	0.0%	0.0%	100.0%
	12.2%	24.2%	0.0%	100.0%	12.4%	5.7%	0.0%	0.0%	***.*%	5.0%	3.1%	9.1%	0.0%	0.0%	3.2%
Unemployed and Not Seeking Employment	308	7	3	0	318	4	0	1	0	5	2	0	0	0	2
	96.9%	2.2%	0.9%	0.0%	100.0%	80.0%	0.0%	20.0%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%
	20.0%	21.2%	17.6%	0.0%	20.0%	2.8%	0.0%	6.7%	***.*%	3.1%	0.8%	0.0%	0.0%	0.0%	0.7%
No Response	69	1	1	0	71	2	0	1	0	3	1	0	1	0	2
	97.2%	1.4%	1.4%	0.0%	100.0%	66.7%	0.0%	33.3%	0.0%	100.0%	50.0%	0.0%	50.0%	0.0%	100.0%
	4.5%	3.0%	5.9%	0.0%	4.5%	1.4%	0.0%	6.7%	***.*%	1.9%	0.4%	0.0%	5.3%	0.0%	0.7%
TOTAL	1,541	33	17	1	1,592	141	4	15	0	160	254	11	19	1	285
	96.8%	2.1%	1.1%	0.1%	100.0%	88.1%	2.5%	9.4%	0.0%	100.0%	89.1%	3.9%	6.7%	0.4%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
ADVANCED STUDY PLANS FALL S 1984															
Full-time	842	16	12	0	870	60	1	11	0	72	25	0	2	1	28
	96.8%	1.8%	1.4%	0.0%	100.0%	83.3%	1.4%	15.3%	0.0%	100.0%	89.3%	0.0%	7.1%	3.6%	100.0%
	54.6%	48.5%	70.6%	0.0%	54.6%	42.6%	25.0%	73.3%	***.*%	45.0%	9.8%	0.0%	10.5%	100.0%	9.8%
Part-time	174	5	2	0	181	9	1	2	0	12	6	2	0	0	8
	96.1%	2.8%	1.1%	0.0%	100.0%	75.0%	8.3%	16.7%	0.0%	100.0%	75.0%	25.0%	0.0%	0.0%	100.0%
	11.3%	15.2%	11.8%	0.0%	11.4%	6.4%	25.0%	13.3%	***.*%	7.5%	2.4%	18.2%	0.0%	0.0%	2.8%
No Plans	524	11	2	1	538	71	2	2	0	75	218	8	17	0	243
	97.4%	2.0%	0.4%	0.2%	100.0%	94.7%	2.7%	2.7%	0.0%	100.0%	89.7%	3.3%	7.0%	0.0%	100.0%
	34.0%	33.3%	11.8%	100.0%	33.8%	50.4%	50.0%	13.3%	***.*%	46.9%	85.8%	72.7%	89.5%	0.0%	85.3%
No Response	1	1	1	0	3	1	0	0	0	1	5	1	0	0	6
	33.3%	33.3%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	83.3%	16.7%	0.0%	0.0%	100.0%
	0.1%	3.0%	5.9%	0.0%	0.2%	0.7%	0.0%	0.0%	***.*%	0.6%	2.0%	9.1%	0.0%	0.0%	2.1%
TOTAL	1,541	33	17	1	1,592	141	4	15	0	160	254	11	19	1	285
	96.8%	2.1%	1.1%	0.1%	100.0%	88.1%	2.5%	9.4%	0.0%	100.0%	89.1%	3.9%	6.7%	0.4%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Count
% of Row
% of Col

TABLE B-3

EMPLOYMENT STATUS of MINORITY CHEMISTRY GRADUATES by Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	25	9	13	1	48	-Count
	52.1%	18.8%	27.1%	2.1%	100.0%	-% of Row
	16.9%	37.5%	38.2%	25.0%	22.9%	-% of Col
Full-time in Non-Chemistry	11	0	1	0	12	
	91.7%	0.0%	8.3%	0.0%	100.0%	
	7.4%	0.0%	2.9%	0.0%	5.7%	
Assistantship, Postdoctoral, or Other Fellowship	42	11	17	3	73	
	57.5%	15.1%	23.3%	4.1%	100.0%	
	28.4%	45.8%	50.0%	75.0%	34.8%	
Unemployed and Seeking Employment	21	1	2	0	24	
	87.5%	4.2%	8.3%	0.0%	100.0%	
	14.2%	4.2%	5.9%	0.0%	11.4%	
Unemployed and Not Seeking Employment	40	2	0	0	42	
	95.2%	4.8%	0.0%	0.0%	100.0%	
	27.0%	8.3%	0.0%	0.0%	20.0%	
No Response	9	1	1	0	11	
	81.8%	9.1%	9.1%	0.0%	100.0%	
	6.1%	4.2%	2.9%	0.0%	5.2%	
TOTAL	148	24	34	4	210	
	70.5%	11.4%	16.2%	1.9%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

ADVANCED STUDY PLANS
FALL 1984

Full-time	90	12	4	2	108
	83.3%	11.1%	3.7%	1.9%	100.0%
	60.8%	50.0%	11.8%	50.0%	51.4%
Part-time	19	4	3	1	27
	70.4%	14.8%	11.1%	3.7%	100.0%
	12.8%	16.7%	8.8%	25.0%	12.9%
No Plans	38	8	26	1	73
	52.1%	11.0%	35.6%	1.4%	100.0%
	25.7%	33.3%	76.5%	25.0%	34.8%
No Response	1	0	1	0	2
	50.0%	0.0%	50.0%	0.0%	100.0%
	0.7%	0.0%	2.9%	0.0%	1.0%
TOTAL	148	24	34	4	210
	70.5%	11.4%	16.2%	1.9%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE B-4

EMPLOYMENT STATUS of B.S. CHEMISTS by Certification Status
1984 Starting Salary Survey

EMPLOYMENT STATUS	CERTIFICATION: Certified	Non-Cert.	No Response	TOTAL	
Full-time Chemistry	244	159	0	403	-Count
	60.5%	39.5%	0.0%	100.0%	-% of Row
	29.1%	21.1%	0.0%	25.3%	-% of Col
Full-time in Non-Chemistry	56	76	0	132	
	42.4%	57.6%	0.0%	100.0%	
	6.7%	10.1%	0.0%	8.3%	
Assistantship, Postdoctoral, or Other Fellowship	334	136	1	471	
	70.9%	28.9%	0.2%	100.0%	
	39.9%	18.1%	100.0%	29.6%	
Unemployed and Seeking Employment	99	98	0	197	
	50.3%	49.7%	0.0%	100.0%	
	11.8%	13.0%	0.0%	12.4%	
Unemployed and Not Seeking Employment	86	232	0	318	
	27.0%	73.0%	0.0%	100.0%	
	10.3%	30.8%	0.0%	20.0%	
No Response	19	52	0	71	
	26.8%	73.2%	0.0%	100.0%	
	2.3%	6.9%	C.0%	4.5%	
TOTAL	838	753	1	1,592	
	52.6%	47.3%	0.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	
ADVANCED STUDY PLANS FALL 1984					
Full-time	449	420	1	870	
	51.6%	48.3%	0.1%	100.0%	
	53.6%	55.8%	100.0%	54.6%	
Part-time	93	88	0	181	
	51.4%	48.6%	0.0%	100.0%	
	11.1%	11.7%	0.0%	11.4%	
No plans	294	244	0	538	
	54.6%	45.4%	0.0%	100.0%	
	35.1%	32.4%	0.0%	33.8%	
No Response	2	1	0	3	
	66.7%	33.3%	0.0%	100.0%	
	0.2%	0.1%	0.0%	0.2%	
TOTAL	838	753	1	1,592	
	52.6%	47.3%	0.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

TABLE B-5

EMPLOYMENT STATUS OF M.S. AND Ph.D. CHEMISTS by Degree Field
1984 Starting Salary Survey

Masters

EMPLOYMENT STATUS	DEGREE FIELD: General Chem.	Bio-Chem.	Agri-cultural	Analytical	In-Organic	Organic	Pharm.	Physical	Theoretical	Polymer	Other Chem.	TOTAL	
Full-time in Chemistry	14	0	0	19	6	19	1	3	0	4	4	70	-Count
	20.0%	0.0%	0.0%	27.1%	8.6%	27.1%	1.4%	4.3%	0.0%	5.7%	5.7%	100.0%	-% of Row
	53.8%	***.*%	***.*%	59.4%	46.2%	41.3%	25.0%	13.6%	0.0%	50.0%	66.7%	43.8%	-% of Col
Full-time in Non-Chemistry	1	0	0	0	0	2	0	0	0	0	0	3	
	33.3%	0.0%	0.0%	0.0%	0.0%	66.7%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	
	3.8%	***.*%	***.*%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	1.9%	
Assistantship, Postdoctoral, or Other Fellowship	9	0	0	10	7	20	2	16	2	4	1	71	
	12.7%	0.0%	0.0%	14.1%	9.9%	28.2%	2.8%	22.5%	2.8%	5.6%	1.4%	100.0%	
	34.6%	***.*%	***.*%	31.3%	53.8%	43.5%	50.0%	72.7%	66.7%	50.0%	16.7%	44.4%	
Unemployed and Seeking Employment	1	0	0	2	0	4	0	0	0	0	1	8	
	12.5%	0.0%	0.0%	25.0%	0.0%	50.0%	0.0%	0.0%	0.0%	0.0%	12.5%	100.0%	
	3.8%	***.*%	***.*%	6.3%	0.0%	8.7%	0.0%	0.0%	0.0%	0.0%	16.7%	5.0%	
Unemployed and Not Seeking Employment	1	0	0	1	0	1	0	1	1	0	0	5	
	20.0%	0.0%	0.0%	20.0%	0.0%	20.0%	0.0%	20.0%	20.0%	0.0%	0.0%	100.0%	
	3.8%	***.*%	***.*%	3.1%	0.0%	2.2%	0.0%	4.5%	33.3%	0.0%	0.0%	3.1%	
No Response	0	0	0	0	0	0	1	2	0	0	0	3	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	33.3%	66.7%	0.0%	0.0%	0.0%	100.0%	
	0.0%	***.*%	***.*%	0.0%	0.0%	0.0%	25.0%	9.1%	0.0%	0.0%	0.0%	1.9%	
TOTAL	26	0	0	32	13	46	4	22	3	8	6	160	
	16.3%	0.0%	0.0%	20.0%	8.1%	28.8%	2.5%	13.8%	1.9%	5.0%	3.8%	100.0%	
	100.0%	***.*%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Doctorate

	General Chem.	Bio-Chem.	Agri-cultural	Analytical	In-Organic	Organic	Pharm.	Physical	Theoretical	Polymer	Other Chem.	TOTAL	
Full-time in Chemistry	5	0	0	34	24	52	0	27	2	5	7	156	-Count
	3.2%	0.0%	0.0%	21.8%	15.4%	33.3%	0.0%	17.3%	1.3%	3.2%	4.5%	100.0%	-% of Row
	41.7%	***.*%	***.*%	79.1%	46.2%	49.1%	***.*%	55.1%	33.3%	100.0%	58.3%	54.7%	-% of Col
Full-time in Non-Chemistry	1	0	0	0	2	0	0	3	1	0	1	8	
	12.5%	0.0%	0.0%	0.0%	25.0%	0.0%	0.0%	37.5%	12.5%	0.0%	12.5%	100.0%	
	8.3%	***.*%	***.*%	0.0%	3.8%	0.0%	***.*%	6.1%	16.7%	0.0%	8.3%	2.8%	
Assistantship, Postdoctoral, or Other Fellowship	4	0	0	7	25	50	0	17	3	0	2	108	
	3.7%	0.0%	0.0%	6.5%	23.1%	46.3%	0.0%	15.7%	2.8%	0.0%	1.9%	100.0%	
	33.3%	***.*%	***.*%	16.3%	48.1%	47.2%	***.*%	34.7%	50.0%	0.0%	16.7%	37.9%	
Unemployed and Seeking Employment	2	0	0	2	1	2	0	0	0	0	2	9	
	22.2%	0.0%	0.0%	22.2%	11.1%	22.2%	0.0%	0.0%	0.0%	0.0%	22.2%	100.0%	
	16.7%	***.*%	***.*%	4.7%	1.9%	1.9%	***.*%	0.0%	0.0%	0.0%	16.7%	3.2%	
Unemployed and Not Seeking Employment	0	0	0	0	0	1	0	1	0	0	0	2	
	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	100.0%	
	0.0%	***.*%	***.*%	0.0%	0.0%	0.9%	***.*%	2.0%	0.0%	0.0%	0.0%	0.7%	
No Response	0	0	0	0	0	1	0	1	0	0	0	2	
	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	0.0%	0.0%	100.0%	
	0.0%	***.*%	***.*%	0.0%	0.0%	0.9%	***.*%	2.0%	0.0%	0.0%	0.0%	0.7%	
TOTAL	12	0	0	43	52	106	0	49	6	5	12	285	
	4.2%	0.0%	0.0%	15.1%	18.2%	37.2%	0.0%	17.2%	2.1%	1.8%	4.2%	100.0%	
	100.0%	***.*%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE B-6

EMPLOYMENT STATUS of B.S. CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
EMPLOYMENT STATUS	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Full-time in Chemistry	396	207	1	604	73	19	0	92	31	2	0	33	-Count
	65.6%	34.3%	0.2%	100.0%	79.3%	20.7%	0.0%	100.0%	93.9%	6.1%	0.0%	100.0%	-% of Row
	46.0%	56.4%	33.3%	49.1%	52.1%	65.5%	***.*%	54.4%	75.6%	100.0%	0.0%	75.0%	-% of Col
Full-time in Non Chemistry	121	36	1	158	9	3	0	12	1	0	0	1	
	76.6%	22.8%	0.6%	100.0%	75.0%	25.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	14.1%	9.8%	33.3%	12.8%	6.4%	10.3%	***.*%	7.1%	2.4%	0.0%	0.0%	2.3%	
Assistantship, Postdoctoral, or Other Fellowship	114	37	1	152	45	4	0	49	6	0	0	6	
	75.0%	24.3%	0.7%	100.0%	91.8%	8.2%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	13.2%	10.1%	33.3%	12.3%	32.1%	13.8%	***.*%	29.0%	14.6%	0.0%	0.0%	13.6%	
Unemployed and Seeking Employment	178	69	0	247	6	1	0	7	1	0	0	1	
	72.1%	27.9%	0.0%	100.0%	85.7%	14.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	20.7%	18.8%	0.0%	20.1%	4.3%	3.4%	***.*%	4.1%	2.4%	0.0%	0.0%	2.3%	
Unemployed and Not Seeking Employment	36	17	0	53	4	1	0	5	0	0	0	0	
	67.9%	32.1%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	4.2%	4.6%	0.0%	4.3%	2.9%	3.4%	***.*%	3.0%	0.0%	0.0%	0.0%	0.0%	
No Response	16	1	0	17	3	1	0	4	2	0	1	3	
	94.1%	5.9%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	66.7%	0.0%	33.3%	100.0%	
	1.9%	0.3%	0.0%	1.4%	2.1%	3.4%	***.*%	2.4%	4.9%	0.0%	100.0%	6.8%	
TOTAL	861	367	3	1,231	140	29	0	169	41	2	1	44	
	69.9%	29.8%	0.2%	100.0%	82.8%	17.2%	0.0%	100.0%	93.2%	4.5%	2.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	
ADVANCED STUDY PLANS FALL 1984													
Full-time	181	53	1	235	53	4	0	57	1	0	0	1	
	77.0%	22.6%	0.4%	100.0%	93.0%	7.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	21.0%	14.4%	33.3%	19.1%	37.9%	13.8%	***.*%	33.7%	2.4%	0.0%	0.0%	2.3%	
Part-time	146	61	0	207	10	9	0	19	1	0	0	1	
	70.5%	29.5%	0.0%	100.0%	52.6%	47.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	17.0%	16.6%	0.0%	16.8%	7.1%	31.0%	***.*%	11.2%	2.4%	0.0%	0.0%	2.3%	
No Plans	530	248	2	780	76	16	0	92	36	2	1	39	
	67.9%	31.8%	0.3%	100.0%	82.6%	17.4%	0.0%	100.0%	92.3%	5.1%	2.6%	100.0%	
	61.6%	67.6%	66.7%	63.4%	54.3%	55.2%	***.*%	54.4%	87.8%	100.0%	100.0%	88.6%	
No Response	4	5	0	9	1	0	0	1	3	0	0	3	
	44.4%	55.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.5%	1.4%	0.0%	0.7%	0.7%	0.0%	***.*%	0.6%	7.3%	0.0%	0.0%	6.8%	
TOTAL	861	367	3	1,231	140	29	0	169	41	2	1	44	
	69.9%	29.8%	0.2%	100.0%	82.8%	17.2%	0.0%	100.0%	93.2%	4.5%	2.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE B-7

EMPLOYMENT STATUS of CHEMICAL ENGINEERING GRADUATES by Citizenship and Degree
1984 Starting Salary Survey

CITIZENSHIP

EMPLOYMENT STATUS	Bachelors: US Citizen	Bachelors: Permanent Resident	Bachelors: Other	Bachelors: No Response	Bachelors: TOTAL	Masters: US Citizen	Masters: Permanent Resident	Masters: Other	Masters: No Response	Masters: TOTAL	Doctorate: US Citizen	Doctorate: Permanent Resident	Doctorate: Other	Doctorate: No Response	Doctorate: TOTAL	
Full-time in Chemistry	597	7	0	0	604	88	0	4	0	92	30	1	2	0	33	-Count
	98.8%	1.2%	0.0%	0.0%	100.0%	95.7%	0.0%	4.3%	0.0%	100.0%	90.9%	3.0%	6.1%	0.0%	100.0%	-% of Row
	49.6%	35.0%	0.0%	0.0%	49.1%	64.7%	0.0%	15.4%	***.*%	54.4%	88.2%	33.3%	33.3%	0.0%	75.0%	-% of Col
Full-time in Non-Chemistry	158	0	0	0	158	10	1	1	0	12	1	0	0	0	1	
	100.0%	0.0%	0.0%	0.0%	100.0%	83.3%	8.3%	8.3%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	
	13.1%	0.0%	0.0%	0.0%	12.8%	7.4%	14.3%	3.8%	***.*%	7.1%	2.9%	0.0%	0.0%	0.0%	2.3%	
Assistantship, Postdoctoral, or Other Fellowship	146	4	1	1	152	29	1	19	0	49	3	1	2	0	6	
	96.1%	2.6%	0.7%	0.7%	100.0%	59.2%	2.0%	38.8%	0.0%	100.0%	50.0%	16.7%	33.3%	0.0%	100.0%	
	12.1%	20.0%	16.7%	100.0%	12.3%	21.3%	14.3%	73.1%	***.*%	29.0%	8.8%	33.3%	33.3%	0.0%	13.6%	
Unemployed and Seeking Employment	237	8	2	0	247	2	3	2	0	7	0	0	1	0	1	
	96.0%	3.2%	0.8%	0.0%	100.0%	28.6%	42.9%	28.6%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	
	19.7%	40.0%	33.3%	0.0%	20.1%	1.5%	42.9%	7.7%	***.*%	4.1%	0.0%	0.0%	16.7%	0.0%	2.3%	
Unemployed and Not Seeking Employment	51	1	1	0	53	4	1	0	0	5	0	0	0	0	0	
	96.2%	1.9%	1.9%	0.0%	100.0%	80.0%	20.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	
	4.2%	5.0%	16.7%	0.0%	4.3%	2.9%	14.3%	0.0%	***.*%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
No Response	15	0	2	0	17	3	1	0	0	4	0	1	1	1	3	
	88.2%	0.0%	11.8%	0.0%	100.0%	75.0%	25.0%	0.0%	0.0%	100.0%	0.0%	33.3%	33.3%	33.3%	100.0%	
	1.2%	0.0%	33.3%	0.0%	1.4%	2.2%	14.3%	0.0%	***.*%	2.4%	0.0%	33.3%	16.7%	100.0%	6.8%	
TOTAL	1,204	20	6	1	1,231	136	7	26	0	169	34	3	6	1	44	
	97.8%	1.6%	0.5%	0.1%	100.0%	80.5%	4.1%	15.4%	0.0%	100.0%	77.3%	6.8%	13.6%	2.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

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Full-time	222	7	5	1	235	35	3	19	0	57	0	0	1	0	1	
	94.5%	3.0%	2.1%	0.4%	100.0%	61.4%	5.3%	33.3%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	
	18.4%	35.0%	83.3%	100.0%	19.1%	25.7%	42.9%	73.1%	***.*%	33.7%	0.0%	0.0%	16.7%	0.0%	2.3%	
Part-time	202	5	0	0	207	16	1	2	0	19	1	0	0	0	1	
	97.6%	2.4%	0.0%	0.0%	100.0%	84.2%	5.3%	10.5%	0.0%	100.0%	100.0%	0.0%	0.0%	0.0%	100.0%	
	16.8%	25.0%	0.0%	0.0%	16.8%	11.8%	14.3%	7.7%	***.*%	11.2%	2.9%	0.0%	0.0%	0.0%	2.3%	
No Plans	771	8	1	0	780	85	3	4	0	92	33	1	4	1	39	
	98.8%	1.0%	0.1%	0.0%	100.0%	92.4%	3.3%	4.3%	0.0%	100.0%	84.6%	2.6%	10.3%	2.6%	100.0%	
	64.0%	40.0%	16.7%	0.0%	63.4%	62.5%	42.9%	15.4%	***.*%	54.4%	97.1%	33.3%	66.7%	100.0%	88.6%	
No Response	9	0	0	0	9	0	0	1	0	1	0	2	1	0	3	
	100.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	0.0%	100.0%	0.0%	66.7%	33.3%	0.0%	100.0%	
	0.7%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	3.8%	***.*%	0.6%	0.0%	66.7%	16.7%	0.0%	6.8%	
TOTAL	1,204	20	6	1	1,231	136	7	26	0	169	34	3	6	1	44	
	97.8%	1.6%	0.5%	0.1%	100.0%	80.5%	4.1%	15.4%	0.0%	100.0%	77.3%	6.8%	13.6%	2.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE B-8

EMPLOYMENT STATUS of MINORITY CHEMICAL ENGINEERING GRADUATES by Degree
1984 Starting Salary Survey

EMPLOYMENT STATUS	HIGHEST DEGREE B.S.	M.S.	Ph.D.	No Response	TOTAL	
Full-time in Chemistry	50	10	4	1	65	Count
	76.9%	15.4%	6.2%	1.5%	100.0%	% of Row
	49.0%	31.3%	36.4%	50.0%	44.2%	% of Col
Full-time in Non-Chemistry	8	2	0	0	10	
	80.0%	20.0%	0.0%	0.0%	100.0%	
	7.8%	6.3%	0.0%	0.0%	6.8%	
Assistantship, Postdoctoral, or Other Fellowship	11	13	4	0	28	
	39.3%	46.4%	14.3%	0.0%	100.0%	
	10.8%	40.6%	36.4%	0.0%	19.0%	
Uemployed and Seeking Employment	21	4	1	1	27	
	77.8%	14.8%	3.7%	3.7%	100.0%	
	20.6%	12.5%	9.1%	50.0%	18.4%	
Unemployed and Not Seeking Employment	9	1	0	0	10	
	90.0%	10.0%	0.0%	0.0%	100.0%	
	8.8%	3.1%	0.0%	0.0%	6.8%	
No Response	3	2	2	0	7	
	42.9%	28.6%	28.6%	0.0%	100.0%	
	2.9%	6.3%	18.2%	0.0%	4.8%	
TOTAL	102	32	11	2	147	
	69.4%	21.8%	7.5%	1.4%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	

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Full-time	23	14	1	0	38
	60.5%	36.8%	2.6%	0.0%	100.0%
	22.5%	43.8%	9.1%	0.0%	25.9%
Part-time	22	5	1	1	29
	75.9%	17.2%	3.4%	3.4%	100.0%
	21.6%	15.6%	9.1%	50.0%	19.7%
No Plans	57	12	6	1	76
	75.0%	15.8%	7.9%	1.3%	100.0%
	55.9%	37.5%	54.5%	50.0%	51.7%
No Response	0	1	3	0	4
	0.0%	25.0%	75.0%	0.0%	100.0%
	0.0%	3.1%	27.3%	0.0%	2.7%
TOTAL	102	32	11	2	147
	69.4%	21.8%	7.5%	1.4%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE C-1

FIELD of ADVANCED STUDIES of CHEMISTS WHO PLAN FULL-TIME or PART-TIME STUDIES in FALL 1984 by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	280	125	0	405	45	22	0	67	20	2	0	22	-Count
	69.1%	30.9%	0.0%	100.0%	67.2%	32.8%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%	-% of Row
	39.4%	36.9%	0.0%	38.5%	84.9%	71.0%	***.*%	79.8%	64.5%	40.0%	***.*%	61.1%	-% of Col
Other Physical Science	10	11	0	21	1	1	0	2	4	0	0	4	
	47.6%	52.4%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.4%	3.2%	0.0%	2.0%	1.9%	3.2%	***.*%	2.4%	12.9%	0.0%	***.*%	11.1%	
Chemical Engineering	12	6	0	18	1	0	0	1	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.7%	1.8%	0.0%	1.7%	1.9%	0.0%	***.*%	1.2%	0.0%	0.0%	***.*%	0.0%	
Other Engineering	10	9	0	19	0	0	0	0	0	0	0	0	
	52.6%	47.4%	0.0%	100.0%	***.*%	***.*%	***.*%	0.0%	***.*%	***.*%	***.*%	***.*%	
	1.4%	2.7%	0.0%	1.8%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Biochemistry	49	27	0	76	0	3	0	3	2	0	0	2	
	64.5%	35.5%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	6.9%	8.0%	0.0%	7.2%	0.0%	9.7%	***.*%	3.6%	6.5%	0.0%	***.*%	5.6%	
Life Science	16	11	0	27	0	1	0	1	0	0	0	0	
	59.3%	40.7%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	2.3%	3.2%	0.0%	2.6%	0.0%	3.2%	***.*%	1.2%	0.0%	0.0%	***.*%	0.0%	
Medicine	217	83	0	300	1	1	0	2	1	1	0	2	
	72.3%	27.7%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	
	30.5%	24.5%	0.0%	28.5%	1.9%	3.2%	***.*%	2.4%	3.2%	20.0%	***.*%	5.6%	
Dentistry	38	8	0	46	0	0	0	0	0	0	0	0	
	82.6%	17.4%	0.0%	100.0%	***.*%	***.*%	***.*%	0.0%	***.*%	***.*%	***.*%	***.*%	
	5.3%	2.4%	0.0%	4.4%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	8	9	1	18	1	1	0	2	1	0	0	1	
	44.4%	50.0%	5.6%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.1%	2.7%	100.0%	1.7%	1.9%	3.2%	***.*%	2.4%	3.2%	0.0%	***.*%	2.8%	
Business	29	13	0	42	2	0	0	2	1	2	0	3	
	69.0%	31.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	
	4.1%	3.8%	0.0%	4.0%	3.8%	0.0%	***.*%	2.4%	3.2%	40.0%	***.*%	8.3%	
Education	5	5	0	10	0	0	0	0	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	0.0%	***.*%	***.*%	***.*%	***.*%	
	0.7%	1.5%	0.0%	1.0%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Law	6	3	0	9	0	0	0	0	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	0.0%	***.*%	***.*%	***.*%	***.*%	
	0.8%	0.9%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Social Science	3	6	0	9	0	0	0	0	0	0	0	0	
	33.3%	66.7%	0.0%	100.0%	***.*%	***.*%	***.*%	0.0%	***.*%	***.*%	***.*%	***.*%	
	0.4%	1.8%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Other	22	20	0	42	1	2	0	3	1	0	0	1	
	52.4%	47.6%	0.0%	100.0%	33.3%	66.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	3.1%	5.9%	0.0%	4.0%	1.9%	6.5%	***.*%	3.6%	3.2%	0.0%	***.*%	2.8%	
No Response	6	3	0	9	1	0	0	1	1	0	0	1	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.8%	0.9%	0.0%	0.9%	1.9%	0.0%	***.*%	1.2%	3.2%	0.0%	***.*%	2.8%	
TOTAL	711	339	1	1,051	53	31	0	84	31	5	0	36	
	67.6%	32.3%	0.1%	100.0%	63.1%	36.9%	0.0%	100.0%	86.1%	13.9%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE C-2

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME or PART-TIME STUDIES In Fall 1984 by Certification Status
1984 Starting Salary Survey

STUDY FIELD	CERTIFICATION: Certified	Non-Cert.	No Response	TOTAL	
Chemistry	306	98	1	405	-Count
	75.6%	24.2%	0.2%	100.0%	-% of Row
	56.5%	19.3%	100.0%	38.5%	-% of Col
Other Physical Science	14	7	0	21	
	66.7%	33.3%	0.0%	100.0%	
	2.6%	1.4%	0.0%	2.0%	
Chemical Engineering	8	10	0	18	
	44.4%	55.6%	0.0%	100.0%	
	1.5%	2.0%	0.0%	1.7%	
Other Engineering	7	12	0	19	
	36.8%	63.2%	0.0%	100.0%	
	1.3%	2.4%	0.0%	1.8%	
Biochemistry	44	32	0	76	
	57.9%	42.1%	0.0%	100.0%	
	8.1%	6.3%	0.0%	7.2%	
Life Science	11	16	0	27	
	40.7%	59.3%	0.0%	100.0%	
	2.0%	3.1%	0.0%	2.6%	
Medicine	80	220	0	300	
	26.7%	73.3%	0.0%	100.0%	
	14.8%	43.3%	0.0%	28.5%	
Dentistry	8	38	0	46	
	17.4%	82.6%	0.0%	100.0%	
	1.5%	7.5%	0.0%	4.4%	
Pharmacy	8	10	0	18	
	44.4%	55.6%	0.0%	100.0%	
	1.5%	2.0%	0.0%	1.7%	
Business	22	20	0	42	
	52.4%	47.6%	0.0%	100.0%	
	4.1%	3.9%	0.0%	4.0%	
Education	7	3	0	10	
	70.0%	30.0%	0.0%	100.0%	
	1.3%	0.6%	0.0%	1.0%	
Law	2	7	0	9	
	22.2%	77.8%	0.0%	100.0%	
	0.4%	1.4%	0.0%	0.9%	
Social Science	4	5	0	9	
	44.4%	55.6%	0.0%	100.0%	
	0.7%	1.0%	0.0%	0.9%	
Other	20	22	0	42	
	47.6%	52.4%	0.0%	100.0%	
	3.7%	4.3%	0.0%	4.0%	
No Response	1	8	0	9	
	11.1%	88.9%	0.0%	100.0%	
	0.2%	1.6%	0.0%	0.9%	
TOTAL	542	508	1	1,051	
	51.6%	48.3%	0.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

TABLE C-3

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO H AN FULL-TIME or PART-TIME STUDIES in Fall 1984 by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				
	SEX								
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	13	3	0	16	1	1	0	2	-Count
	81.3%	18.8%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	-% of Row
	4.0%	2.6%	0.0%	3.6%	1.6%	7.7%	***.*%	2.6%	-% of Col
Other Physical Science	14	3	0	17	1	0	0	1	
	82.4%	17.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	4.3%	2.6%	0.0%	3.8%	1.6%	0.0%	***.*%	1.3%	
Chemical Engineering	122	43	1	166	50	8	0	58	
	73.5%	25.9%	0.6%	100.0%	86.2%	13.8%	0.0%	100.0%	
	37.3%	37.7%	100.0%	37.6%	79.4%	61.5%	***.*%	76.3%	
Other Engineering	53	16	0	69	3	1	0	4	
	76.8%	23.2%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	16.2%	14.0%	0.0%	15.6%	4.8%	7.7%	***.*%	5.3%	
Biochemistry	4	0	0	4	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.2%	0.0%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	
Life Science	2	1	0	3	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.9%	0.0%	0.7%	0.0%	0.0%	***.*%	0.0%	
Medicine	16	8	0	24	1	0	0	1	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	4.9%	7.0%	0.0%	5.4%	1.6%	0.0%	***.*%	1.3%	
Dentistry	2	1	0	3	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.9%	0.0%	0.7%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	***.*%	0.0%	
Business	72	29	0	101	4	2	0	6	
	71.3%	28.7%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	
	22.0%	25.4%	0.0%	22.9%	6.3%	15.4%	***.*%	7.9%	
Education	1	1	0	2	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.3%	0.9%	0.0%	0.5%	0.0%	0.0%	***.*%	0.0%	
Law	9	3	0	12	1	0	0	1	
	75.0%	25.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.8%	2.6%	0.0%	2.7%	1.6%	0.0%	***.*%	1.3%	
Social Science	3	1	0	4	0	0	0	0	
	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.9%	0.9%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	
Other	12	5	0	17	2	1	0	3	
	70.6%	29.4%	0.0%	100.0%	66.7%	33.3%	0.0%	100.0%	
	3.7%	4.4%	0.0%	3.8%	3.2%	7.7%	***.*%	3.9%	
No Response	4	0	0	4	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.2%	0.0%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	
TOTAL	327	114	1	442	63	13	0	76	
	74.0%	25.8%	0.2%	100.0%	82.9%	17.1%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE C-4

FIELD of ADVANCED STUDIES of CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES
in FALL 1984 by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				Doctorate				
	SEX												
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	239	99	0	338	41	20	0	61	19	2	0	21	-Count
	70.7%	29.3%	0.0%	100.0%	67.2%	32.8%	0.0%	100.0%	90.5%	9.5%	0.0%	100.0%	-% of Row
	39.4%	37.6%	0.0%	38.9%	93.2%	71.4%	***.*%	84.7%	76.0%	66.7%	***.*%	75.0%	-% of Col
Other Physical Sciences	5	4	0	9	1	1	0	2	0	0	0	0	
	55.6%	44.4%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.8%	1.5%	0.0%	1.0%	2.3%	3.6%	***.*%	2.8%	0.0%	0.0%	***.*%	0.0%	
Chemical Engineering	8	2	0	10	0	0	0	0	0	0	0	0	
	80.0%	20.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.3%	0.8%	0.0%	1.1%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Other Engineering	5	6	0	11	0	0	0	0	0	0	0	0	
	45.5%	54.5%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.8%	2.3%	0.0%	1.3%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Biochemistry	44	22	0	66	0	3	0	3	2	0	0	2	
	66.7%	33.3%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	7.3%	8.4%	0.0%	7.6%	0.0%	10.7%	***.*%	4.2%	8.0%	0.0%	***.*%	7.1%	
Life Science	11	5	0	16	0	1	0	1	0	0	0	0	
	68.8%	31.3%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.8%	1.9%	0.0%	1.8%	0.0%	3.6%	***.*%	1.4%	0.0%	0.0%	***.*%	0.0%	
Medicine	210	81	0	291	1	1	0	2	1	1	0	2	
	72.2%	27.8%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	
	34.7%	30.8%	0.0%	33.4%	2.3%	3.6%	***.*%	2.8%	4.0%	33.3%	***.*%	7.1%	
Dentistry	37	8	0	45	0	0	0	0	0	0	0	0	
	82.2%	17.8%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	6.1%	3.0%	0.0%	5.2%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	8	8	1	17	0	1	0	1	1	0	0	1	
	47.1%	47.1%	5.9%	100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.3%	3.0%	100.0%	2.0%	0.0%	3.6%	***.*%	1.4%	4.0%	0.0%	***.*%	3.6%	
Business	8	6	0	14	0	0	0	0	0	0	0	0	
	57.1%	42.9%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.3%	2.3%	0.0%	1.6%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Education	3	4	0	7	0	0	0	0	0	0	0	0	
	42.9%	57.1%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.5%	1.5%	0.0%	0.8%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Law	6	2	0	8	0	0	0	0	0	0	0	0	
	75.0%	25.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.0%	0.8%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Social Science	2	1	0	3	0	0	0	0	0	0	0	0	
	66.7%	33.3%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.3%	0.4%	0.0%	0.3%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	***.*%	0.0%	
Other	16	13	0	29	0	1	0	1	1	0	0	1	
	55.2%	44.8%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.6%	4.9%	0.0%	3.3%	0.0%	3.6%	***.*%	1.4%	4.0%	0.0%	***.*%	3.6%	
No Response	4	2	0	6	1	0	0	1	1	0	0	1	
	66.7%	33.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.7%	0.8%	0.0%	0.7%	2.3%	0.0%	***.*%	1.4%	4.0%	0.0%	***.*%	3.6%	
TOTAL	606	263	1	870	44	28	0	72	25	3	0	28	
	69.7%	30.2%	0.1%	100.0%	61.1%	38.9%	0.0%	100.0%	89.3%	10.7%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE C-5

FIELD of ADVANCED STUDIES of B.S. CHEMISTRY GRADUATES WHO PLAN FULL-TIME STUDIES in FALL 1984 by Certification Status
1984 Starting Salary Survey

	CERTIFICATION				
STUDY FIELD	Certified	Non-Cert.	No Response	TOTAL	
Chemistry	263	74	1	338	-Count
	77.8%	21.9%	0.3%	100.0%	-% of Row
	58.6%	17.6%	100.0%	38.9%	-% of Col
Other Physical Science	7	2	0	9	
	77.8%	22.2%	0.0%	100.0%	
	1.6%	0.5%	0.0%	1.0%	
Chemical Engineering	5	5	0	10	
	50.0%	50.0%	0.0%	100.0%	
	1.1%	1.2%	0.0%	1.1%	
Other Engineering	5	6	0	11	
	45.5%	54.5%	0.0%	100.0%	
	1.1%	1.4%	0.0%	1.3%	
Biochemistry	42	24	0	66	
	63.6%	36.4%	0.0%	100.0%	
	9.4%	5.7%	0.0%	7.6%	
Life Science	7	9	0	16	
	43.8%	56.3%	0.0%	100.0%	
	1.6%	2.1%	0.0%	1.8%	
Medicine	78	213	0	291	
	26.8%	73.2%	0.0%	100.0%	
	17.4%	50.7%	0.0%	33.4%	
Dentistry	7	38	0	45	
	15.6%	84.4%	0.0%	100.0%	
	1.6%	9.0%	0.0%	5.2%	
Pharmacy	8	9	0	17	
	47.1%	52.9%	0.0%	100.0%	
	1.8%	2.1%	0.0%	2.0%	
Business	5	9	0	14	
	35.7%	64.3%	0.0%	100.0%	
	1.1%	2.1%	0.0%	1.6%	
Education	5	2	0	7	
	71.4%	28.6%	0.0%	100.0%	
	1.1%	0.5%	0.0%	0.8%	
Law	2	6	0	8	
	25.0%	75.0%	0.0%	100.0%	
	0.4%	1.4%	0.0%	0.9%	
Social Science	2	1	0	3	
	66.7%	33.3%	0.0%	100.0%	
	0.4%	0.2%	0.0%	0.3%	
Other	12	17	0	29	
	41.4%	58.6%	0.0%	100.0%	
	2.7%	4.0%	0.0%	3.3%	
No Response	1	5	0	6	
	16.7%	83.3%	0.0%	100.0%	
	0.2%	1.2%	0.0%	0.7%	
TOTAL	449	420	1	870	
	51.6%	48.3%	0.1%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

TABLE C-6

FIELD of ADVANCED STUDIES of CHEMICAL ENGINEERING GRADUATES WHO PLAN FULL-TIME STUDIES in Fall 1984 by Degree and Sex
1984 Starting Salary Survey

	Bachelors				Masters				
	SEX								
STUDY FIELD	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Chemistry	9	1	0	10	0	1	0	1	-Count
	90.0%	10.0%	0.0%	100.0%	0.0%	100.0%	0.0%	100.0%	-% of Row
	5.0%	1.9%	0.0%	4.3%	0.0%	25.0%	***.*%	1.8%	-% of Col
Other Physical Science	5	1	0	6	1	0	0	1	
	83.3%	16.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.8%	1.9%	0.0%	2.6%	1.9%	0.0%	***.*%	1.8%	
Chemical Engineering	88	32	1	121	48	3	0	51	
	72.7%	26.4%	0.8%	100.0%	94.1%	5.9%	0.0%	100.0%	
	48.6%	60.4%	100.0%	51.5%	90.6%	75.0%	***.*%	89.5%	
Other Engineering	29	3	0	32	1	0	0	1	
	90.6%	9.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	16.0%	5.7%	0.0%	13.6%	1.9%	0.0%	***.*%	1.8%	
Biochemistry	2	0	0	2	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.1%	0.0%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	
Life Science	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	***.*%	0.0%	
Medicine	15	7	0	22	1	0	0	1	
	68.2%	31.8%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	8.3%	13.2%	0.0%	9.4%	1.9%	0.0%	***.*%	1.8%	
Dentistry	1	1	0	2	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	1.9%	0.0%	0.9%	0.0%	0.0%	***.*%	0.0%	
Pharmacy	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	***.*%	0.0%	
Business	19	5	0	24	1	0	0	1	
	79.2%	20.8%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	10.5%	9.4%	0.0%	10.2%	1.9%	0.0%	***.*%	1.8%	
Education	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	***.*%	0.0%	
Law	7	1	0	8	1	0	0	1	
	87.5%	12.5%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	3.9%	1.9%	0.0%	3.4%	1.9%	0.0%	***.*%	1.8%	
Social Science	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	***.*%	0.0%	
Other	2	2	0	4	0	0	0	0	
	50.0%	50.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.1%	3.8%	0.0%	1.7%	0.0%	0.0%	***.*%	0.0%	
No Response	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	0.6%	0.0%	0.0%	0.4%	0.0%	0.0%	***.*%	0.0%	
TOTAL	181	53	1	235	53	4	0	57	
	77.0%	22.6%	0.4%	100.0%	93.0%	7.0%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE C-7

B.S. CHEMISTRY GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT
by PLANS FOR FURTHER STUDIES and Sex
1984 Starting Salary Survey

	SEX				
ADVANCED STUDIES	Men	Women	No Response	TOTAL	
Full-time	201	87	1	289	-Count
	69.6%	30.1%	0.3%	100.0%	-% of Row
	92.6%	87.0%	100.0%	90.9%	-% of Col
Part-time	8	5	0	13	
	61.5%	38.5%	0.0%	100.0%	
	3.7%	5.0%	0.0%	4.1%	
No Plans	8	8	0	16	
	50.0%	50.0%	0.0%	100.0%	
	3.7%	8.0%	0.0%	5.0%	
No Response	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	
TOTAL	217	100	1	318	
	68.2%	31.4%	0.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	

TABLE C-8

B.S. CHEMICAL ENGINEERING GRADUATES UNEMPLOYED and NOT SEEKING EMPLOYMENT by PLANS FOR FURTHER STUDIES and Sex
1984 Starting Salary Survey

	SEX				
ADVANCED STUDIES	Men	Women	No Response	TOTAL	
Full-time	33	12	0	45	-Count
	73.3%	26.7%	0.0%	100.0%	-% of Row
	91.7%	70.6%	***.*%	84.9%	-% of Col
Part-time	0	2	0	2	
	0.0%	100.0%	0.0%	100.0%	
	0.0%	11.8%	***.*%	3.8%	
No Plans	3	3	0	6	
	50.0%	50.0%	0.0%	100.0%	
	8.3%	17.6%	***.*%	11.3%	
No Response	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	
TOTAL	36	17	0	53	
	67.9%	32.1%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	

TABLE D-1

AGE DISTRIBUTION of B.S. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1984 Starting Salary Survey

	Chemistry				Chemical Engineering			
	SEX							
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
20	10	8	0	18	4	0	0	4
	55.6%	44.4%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	1.0%	1.3%	0.0%	1.1%	0.3%	0.0%	0.0%	0.3%
21	161	118	0	279	113	60	1	174
	57.7%	42.3%	0.0%	100.0%	64.9%	34.5%	0.6%	100.0%
	16.2%	19.8%	0.0%	17.5%	13.1%	16.3%	33.3%	14.1%
22	487	315	1	803	388	182	0	570
	60.6%	39.2%	0.1%	100.0%	68.1%	31.9%	0.0%	100.0%
	48.9%	52.9%	50.0%	50.4%	45.1%	49.6%	0.0%	46.3%
23	166	79	0	245	220	78	0	298
	67.8%	32.2%	0.0%	100.0%	73.8%	26.2%	0.0%	100.0%
	16.7%	13.3%	0.0%	15.4%	25.6%	21.3%	0.0%	24.2%
24	53	21	0	74	46	17	2	65
	71.6%	28.4%	0.0%	100.0%	70.8%	26.2%	3.1%	100.0%
	5.3%	3.5%	0.0%	4.6%	5.3%	4.6%	66.7%	5.3%
25	25	7	0	32	27	7	0	34
	78.1%	21.9%	0.0%	100.0%	79.4%	20.6%	0.0%	100.0%
	2.5%	1.2%	0.0%	2.0%	3.1%	1.9%	0.0%	2.8%
26	27	5	0	32	13	8	0	21
	84.4%	15.6%	0.0%	100.0%	61.9%	38.1%	0.0%	100.0%
	2.7%	0.8%	0.0%	2.0%	1.5%	2.2%	0.0%	1.7%
27	10	9	0	19	13	4	0	17
	52.6%	47.4%	0.0%	100.0%	76.5%	23.5%	0.0%	100.0%
	1.0%	1.5%	0.0%	1.2%	1.5%	1.1%	0.0%	1.4%
28	12	4	0	16	6	5	0	11
	75.0%	25.0%	0.0%	100.0%	54.5%	45.5%	0.0%	100.0%
	1.2%	0.7%	0.0%	1.0%	0.7%	1.4%	0.0%	0.9%
29	14	4	0	18	7	1	0	8
	77.8%	22.2%	0.0%	100.0%	87.5%	12.5%	0.0%	100.0%
	1.4%	0.7%	0.0%	1.1%	0.8%	0.3%	0.0%	0.6%
30-34	25	10	0	35	18	1	0	19
	71.4%	28.6%	0.0%	100.0%	94.7%	5.3%	0.0%	100.0%
	2.5%	1.7%	0.0%	2.2%	2.1%	0.3%	0.0%	1.5%
35-39	3	6	0	9	1	3	0	4
	33.3%	66.7%	0.0%	100.0%	25.0%	75.0%	0.0%	100.0%
	0.3%	1.0%	0.0%	0.6%	0.1%	0.8%	0.0%	0.3%
40-49	0	6	0	6	3	0	0	3
	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
	0.0%	1.0%	0.0%	0.4%	0.3%	0.0%	0.0%	0.2%
50-64	0	0	0	0	0	0	0	0
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
No Response	2	3	1	6	2	1	0	3
	33.3%	50.0%	16.7%	100.0%	66.7%	33.3%	0.0%	100.0%
	0.2%	0.5%	50.0%	0.4%	0.2%	0.3%	0.0%	0.2%
TOTAL	995	595	2	1,392	861	367	3	1,231
	62.5%	37.4%	0.1%	100.0%	69.9%	29.8%	0.2%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

-Count
-% of Row
-% of Col

TABLE D-2

AGE DISTRIBUTION of M.S. CHEMISTRY and CHEMICAL ENGINEERING by Sex
1984 Starting Salary Survey

	Chemistry				Chemical Engineering				
	SEX								
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
21	0	0	0	0	0	1	0	1	-Count
	***.*%	***.*%	***.*%	***.*%	0.0%	100.0%	0.0%	100.0%	-% of Row
	0.0%	0.0%	***.*%	0.0%	0.0%	3.4%	***.*%	0.6%	-% of Col
22	1	1	0	2	4	1	0	5	
	50.0%	50.0%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%	
	1.0%	1.7%	***.*%	1.3%	2.9%	3.4%	***.*%	3.0%	
23	4	1	0	5	15	6	0	21	
	80.0%	20.0%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	
	4.0%	1.7%	***.*%	3.1%	10.7%	20.7%	***.*%	12.4%	
24	19	7	0	26	31	5	0	36	
	73.1%	26.9%	0.0%	100.0%	86.1%	13.9%	0.0%	100.0%	
	18.8%	11.9%	***.*%	16.3%	22.1%	17.2%	***.*%	21.3%	
25	23	14	0	37	24	5	0	29	
	62.2%	37.8%	0.0%	100.0%	82.8%	17.2%	0.0%	100.0%	
	22.8%	23.7%	***.*%	23.1%	17.1%	17.2%	***.*%	17.2%	
26	10	8	0	18	23	3	0	26	
	55.6%	44.4%	0.0%	100.0%	88.5%	11.5%	0.0%	100.0%	
	9.9%	13.6%	***.*%	11.3%	16.4%	10.3%	***.*%	15.4%	
27	4	11	0	15	13	1	0	14	
	26.7%	73.3%	0.0%	100.0%	92.9%	7.1%	0.0%	100.0%	
	4.0%	18.6%	***.*%	9.4%	9.3%	3.4%	***.*%	8.3%	
28	5	1	0	6	7	1	0	8	
	83.3%	16.7%	0.0%	100.0%	87.5%	12.5%	0.0%	100.0%	
	5.0%	1.7%	***.*%	3.8%	5.0%	3.4%	***.*%	4.7%	
29	8	4	0	12	5	2	0	7	
	66.7%	33.3%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	
	7.9%	6.8%	***.*%	7.5%	3.6%	6.9%	***.*%	4.1%	
30-34	19	6	0	25	13	3	0	16	
	76.0%	24.0%	0.0%	100.0%	81.3%	18.8%	0.0%	100.0%	
	18.8%	10.2%	***.*%	15.6%	9.3%	10.3%	***.*%	9.5%	
35-39	7	2	0	9	3	1	0	4	
	77.8%	22.2%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	
	6.9%	3.4%	***.*%	5.6%	2.1%	3.4%	***.*%	2.4%	
40-49	0	3	0	3	1	0	0	1	
	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.0%	5.1%	***.*%	1.9%	0.7%	0.0%	***.*%	0.6%	
50-64	1	0	0	1	0	0	0	0	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	
	1.0%	0.0%	***.*%	0.6%	0.0%	0.0%	***.*%	0.0%	
No Response	0	1	0	1	1	0	0	1	
	0.0%	100.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.0%	1.7%	***.*%	0.6%	0.7%	0.0%	***.*%	0.6%	
TOTAL	101	59	0	160	140	29	0	169	
	63.1%	36.9%	0.0%	100.0%	82.8%	17.2%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE D-3

AGE DISTRIBUTION of Ph.D. CHEMISTRY and CHEMICAL ENGINEERING GRADUATES by Sex
1984 Starting Salary Survey

	Chemistry				Chemical Engineering			
	SEX							
AGE LEVEL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL
23	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 0.0% 0.0%	1 100.0% 1.7%	0 0.0% 0.0%	1 -Count 100.0% -% of Row 0.3% -% of Col
24	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% 0.0%
25	1 50.0% 0.4%	1 50.0% 1.7%	0 0.0% ***.*%	2 100.0% 0.7%	3 75.0% 1.1%	1 25.0% 1.7%	0 0.0% 0.0%	4 100.0% 1.2%
26	23 76.7% 10.1%	7 23.3% 12.1%	0 0.0% ***.*%	30 100.0% 10.5%	25 78.1% 9.3%	7 21.9% 11.7%	0 0.0% 0.0%	32 100.0% 9.7%
27	46 71.9% 20.3%	18 28.1% 31.0%	0 0.0% ***.*%	64 100.0% 22.5%	53 73.6% 19.8%	19 26.4% 31.7%	0 0.0% 0.0%	72 100.0% 21.9%
28	55 88.7% 24.2%	7 11.3% 12.1%	0 0.0% ***.*%	62 100.0% 21.8%	67 90.5% 25.0%	7 9.5% 11.7%	0 0.0% 0.0%	74 100.0% 22.5%
29	27 62.8% 11.9%	16 37.2% 27.6%	0 0.0% ***.*%	43 100.0% 15.1%	31 66.0% 11.6%	16 34.0% 26.7%	0 0.0% 0.0%	47 100.0% 14.3%
30-34	57 89.1% 25.1%	7 10.9% 12.1%	0 0.0% ***.*%	64 100.0% 22.5%	69 90.8% 25.7%	7 9.2% 11.7%	0 0.0% 0.0%	76 100.0% 23.1%
35-39	12 92.3% 5.3%	1 7.7% 1.7%	0 0.0% ***.*%	13 100.0% 4.6%	14 93.3% 5.2%	1 6.7% 1.7%	0 0.0% 0.0%	15 100.0% 4.6%
40-49	5 83.3% 2.2%	1 16.7% 1.7%	0 0.0% ***.*%	6 100.0% 2.1%	5 83.3% 1.9%	1 16.7% 1.7%	0 0.0% 0.0%	6 100.0% 1.8%
50-64	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% ***.*%	1 100.0% 0.4%	1 100.0% 0.4%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 0.3%
No Response	0 ***.*% 0.0%	0 ***.*% 0.0%	0 ***.*% ***.*%	0 ***.*% 0.0%	0 0.0% 0.0%	0 0.0% 0.0%	1 100.0% 100.0%	1 100.0% 0.3%
TOTAL	227 79.6% 100.0%	58 20.4% 100.0%	0 0.0% ***.*%	285 100.0% 100.0%	268 81.5% 100.0%	60 18.2% 100.0%	1 0.3% 100.0%	329 100.0% 100.0%

TABLE D-4

AGE DISTRIBUTION of POSTDOCTORAL CHEMISTS by Sex
1984 Starting Salary Survey

AGE LEVEL	SEX: Men	Woman	No Response	TOTAL	
26	9	2	0	11	-Count
	81.8%	18.2%	0.0%	100.0%	-% of Row
	10.3%	9.5%	***.*%	10.2%	-% of Col
27	19	9	0	28	
	67.9%	32.1%	0.0%	100.0%	
	21.8%	42.9%	***.*%	25.9%	
28	25	2	0	27	
	92.6%	7.4%	0.0%	100.0%	
	28.7%	9.5%	***.*%	25.0%	
29	9	5	0	14	
	64.3%	35.7%	0.0%	100.0%	
	10.3%	23.8%	***.*%	13.0%	
30-34	19	3	0	22	
	86.4%	13.6%	0.0%	100.0%	
	21.8%	14.3%	***.*%	20.4%	
35-39	4	0	0	4	
	100.0%	0.0%	0.0%	100.0%	
	4.6%	0.0%	***.*%	3.7%	
40-49	2	0	0	2	
	100.0%	0.0%	0.0%	100.0%	
	2.3%	0.0%	***.*%	1.9%	
No Response	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	***.*%	0.0%	
TOTAL	87	21	0	108	
	80.6%	19.4%	0.0%	100.0%	
	100.0%	100.0%	***.*%	100.0%	

TABLE E-1

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMISTS by Sex and Degree
1984 Starting Salary Survey

	Bachelors			Masters			Doctorate			
SEX										
NUMBER OF JOB OFFERS	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	
1	84	74	158	10	1	11	37	6	43	-Count
	53.2%	46.8%	100.0%	90.9%	9.1%	100.0%	86.0%	14.0%	100.0%	-% of Row
	58.3%	54.4%	56.4%	52.6%	16.7%	44.0%	43.5%	26.1%	39.8%	-% of Col
2	32	32	64	5	5	10	27	9	36	
	50.0%	50.0%	100.0%	50.0%	50.0%	100.0%	75.0%	25.0%	100.0%	
	22.2%	23.5%	22.9%	26.3%	83.3%	40.0%	31.8%	39.1%	33.3%	
3	20	15	35	1	0	1	14	2	16	
	57.1%	42.9%	100.0%	100.0%	0.0%	100.0%	87.5%	12.5%	100.0%	
	13.9%	11.0%	12.5%	5.3%	0.0%	4.0%	16.5%	8.7%	14.8%	
4	4	11	15	1	0	1	5	4	9	
	26.7%	73.3%	100.0%	100.0%	0.0%	100.0%	55.6%	44.4%	100.0%	
	2.8%	8.1%	5.4%	5.3%	0.0%	4.0%	5.9%	17.4%	8.3%	
5	1	4	5	1	0	1	1	1	2	
	20.0%	80.0%	100.0%	100.0%	0.0%	100.0%	50.0%	50.0%	100.0%	
	0.7%	2.9%	1.8%	5.3%	0.0%	4.0%	1.2%	4.3%	1.9%	
6-7	2	0	2	1	0	1	1	1	2	
	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	50.0%	50.0%	100.0%	
	1.4%	0.0%	0.7%	5.3%	0.0%	4.0%	1.2%	4.3%	1.9%	
8-9	0	0	0	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
10+	1	0	1	0	0	0	0	0	0	
	100.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.7%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TOTAL	144	136	280	19	6	25	85	23	108	
	51.4%	48.6%	100.0%	76.0%	24.0%	100.0%	78.7%	21.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE E-2

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMISTS by Sex and Degree
1984 Starting Salary Survey

	Bachelors			Masters			Doctorate			
	SEX									
NUMBER OF JOB OFFERS	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	
1	33	28	61	16	8	24	19	3	22	-Count
	54.1%	45.9%	100.0%	66.7%	33.3%	100.0%	86.4%	13.6%	100.0%	-% of Row
	53.2%	53.8%	53.5%	59.3%	47.1%	54.5%	52.8%	50.0%	52.4%	-% of Col
2	12	15	27	5	4	9	5	1	6	
	44.4%	55.6%	100.0%	55.6%	44.4%	100.0%	83.3%	16.7%	100.0%	
	19.4%	28.8%	23.7%	18.5%	23.5%	20.5%	13.9%	16.7%	14.3%	
3	12	4	16	5	4	9	5	1	6	
	75.0%	25.0%	100.0%	55.6%	44.4%	100.0%	83.3%	16.7%	100.0%	
	19.4%	7.7%	14.0%	18.5%	23.5%	20.5%	13.9%	16.7%	14.3%	
4	1	4	5	1	0	1	5	0	5	
	20.0%	80.0%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	
	1.6%	7.7%	4.4%	3.7%	0.0%	2.3%	13.9%	0.0%	11.9%	
5	3	1	4	0	0	0	0	1	1	
	75.0%	25.0%	100.0%	***.*%	***.*%	***.*%	0.0%	100.0%	100.0%	
	4.8%	1.9%	3.5%	0.0%	0.0%	0.0%	0.0%	16.7%	2.4%	
6-7	0	0	0	0	0	0	1	0	1	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	100.0%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.8%	0.0%	2.4%	
8-9	0	0	0	0	1	1	0	0	0	
	***.*%	***.*%	***.*%	0.0%	100.0%	100.0%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	5.9%	2.3%	0.0%	0.0%	0.0%	
10+	1	0	1	0	0	0	1	0	1	
	100.0%	0.0%	100.0%	***.*%	***.*%	***.*%	100.0%	0.0%	100.0%	
	1.6%	0.0%	0.9%	0.0%	0.0%	0.0%	2.8%	0.0%	2.4%	
TOTAL	62	52	114	27	17	44	36	6	42	
	54.4%	45.6%	100.0%	61.4%	38.6%	100.0%	85.7%	14.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE E-3

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED INEXPERIENCED CHEMICAL ENGINERS by Sex and Degree
1984 Starting Salary Survey

	Bachelors			Masters			Doctorate			
	SEX									
JOB OFFER LEVEL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	
1	162	75	237	16	4	20	5	0	5	-Count
	68.4%	31.6%	100.0%	80.0%	20.0%	100.0%	100.0%	0.0%	100.0%	-% of Row
	51.8%	45.5%	49.6%	43.2%	40.0%	42.6%	26.3%	0.0%	25.0%	-% of Col
2	77	47	124	7	2	9	4	0	4	
	62.1%	37.9%	100.0%	77.8%	22.2%	100.0%	100.0%	0.0%	100.0%	
	24.6%	28.5%	25.9%	18.9%	20.0%	19.1%	21.1%	0.0%	20.0%	
3	40	22	62	9	2	11	4	0	4	
	64.5%	35.5%	100.0%	81.8%	18.2%	100.0%	100.0%	0.0%	100.0%	
	12.8%	13.3%	13.0%	24.3%	20.0%	23.4%	21.1%	0.0%	20.0%	
4	19	6	25	2	1	3	1	0	1	
	76.0%	24.0%	100.0%	66.7%	33.3%	100.0%	100.0%	0.0%	100.0%	
	6.1%	3.6%	5.2%	5.4%	10.0%	6.4%	5.3%	0.0%	5.0%	
5	4	9	13	2	0	2	2	0	2	
	30.8%	69.2%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	
	1.3%	5.5%	2.7%	5.4%	0.0%	4.3%	10.5%	0.0%	10.0%	
6-7	7	5	12	0	1	1	1	1	2	
	58.3%	41.7%	100.0%	0.0%	100.0%	100.0%	50.0%	50.0%	100.0%	
	2.2%	3.0%	2.5%	0.0%	10.0%	2.1%	5.3%	100.0%	10.0%	
8-9	3	1	4	0	0	0	1	0	1	
	75.0%	25.0%	100.0%	***.*%	***.*%	***.*%	100.0%	0.0%	100.0%	
	1.0%	0.6%	0.8%	0.0%	0.0%	0.0%	5.3%	0.0%	5.0%	
10+	1	0	1	1	0	1	1	0	1	
	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	
	0.3%	0.0%	0.2%	2.7%	0.0%	2.1%	5.3%	0.0%	5.0%	
TOTAL	313	165	478	37	10	47	19	1	20	
	65.5%	34.5%	100.0%	78.7%	21.3%	100.0%	95.0%	5.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE E-4

NUMBER of FIRM JOB OFFERS TO FULL-TIME EMPLOYED EXPERIENCED CHEMICAL ENGINEEERS by Sex and Degree
1984 Starting Salary Survey

	Bachelors			Masters			Doctorate			
SEX										
JOB OFFER LEVEL	Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	
1	42	18	60	19	5	24	5	0	5	-Count
	70.0%	30.0%	100.0%	79.2%	20.8%	100.0%	100.0%	0.0%	100.0%	-% of Row
	50.6%	45.0%	48.8%	55.9%	55.6%	55.8%	41.7%	0.0%	38.5%	-% of Col
2	18	7	25	8	2	10	2	0	2	
	72.0%	28.0%	100.0%	80.0%	20.0%	100.0%	100.0%	0.0%	100.0%	
	21.7%	17.5%	20.3%	23.5%	22.2%	23.3%	16.7%	0.0%	15.4%	
3	15	6	21	4	1	5	1	1	2	
	71.4%	28.6%	100.0%	80.0%	20.0%	100.0%	50.0%	50.0%	100.0%	
	18.1%	15.0%	17.1%	11.8%	11.1%	11.6%	8.3%	100.0%	15.4%	
4	1	2	3	3	0	3	2	0	2	
	33.3%	66.7%	100.0%	100.0%	0.0%	100.0%	100.0%	0.0%	100.0%	
	1.2%	5.0%	2.4%	8.8%	0.0%	7.0%	16.7%	0.0%	15.4%	
5	4	2	6	0	1	1	1	0	1	
	66.7%	33.3%	100.0%	0.0%	100.0%	100.0%	100.0%	0.0%	100.0%	
	4.8%	5.0%	4.9%	0.0%	11.1%	2.3%	8.3%	0.0%	7.7%	
6-7	2	2	4	0	0	0	1	0	1	
	50.0%	50.0%	100.0%	***.*%	***.*%	***.*%	100.0%	0.0%	100.0%	
	2.4%	5.0%	3.2%	0.0%	0.0%	0.0%	8.3%	0.0%	7.7%	
8-9	0	2	2	0	0	0	0	0	0	
	0.0%	100.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	5.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
10+	1	1	2	0	0	0	0	0	0	
	50.0%	50.0%	100.0%	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	1.2%	2.5%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TOTAL	83	40	123	34	9	43	12	1	13	
	67.5%	32.5%	100.0%	79.1%	20.9%	100.0%	92.3%	7.7%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE F-1

ETHNIC CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMISTS by Degree
1984 Starting Salary Survey

ETHNICITY

Bachelors

CITIZENSHIP	Black	Hispanic	Asian	American Indian	White	TOTAL	
US Citizen	27	1	67	28	1,410	1,533	-Count
	1.8%	0.1%	4.4%	1.8%	92.0%	100.0%	-% of Row
	81.8%	25.0%	81.7%	96.6%	98.2%	96.8%	-% of Col
Permanent Resident	5	2	5	1	20	33	
	15.2%	6.1%	15.2%	3.0%	60.6%	100.0%	
	15.2%	50.0%	6.1%	3.4%	1.4%	2.1%	
Other Visa	1	1	9	0	6	17	
	5.9%	5.9%	52.9%	0.0%	35.3%	100.0%	
	3.0%	25.0%	11.0%	0.0%	0.4%	1.1%	
No Response	0	0	1	0	0	1	
	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	1.2%	0.0%	0.0%	0.1%	
TOTAL	33	4	82	29	1,436	1,584	
	2.1%	0.3%	5.2%	1.8%	90.7%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

Masters

US Citizen	5	1	3	2	127	138
	3.6%	0.7%	2.2%	1.4%	92.0%	100.0%
	71.4%	100.0%	25.0%	50.0%	96.2%	88.5%
Permanent Resident	0	0	0	1	3	4
	0.0%	0.0%	0.0%	25.0%	75.0%	100.0%
	0.0%	0.0%	0.0%	25.0%	2.3%	2.6%
Other Visa	2	0	9	1	2	14
	14.3%	0.0%	64.3%	7.1%	14.3%	100.0%
	28.6%	0.0%	75.0%	25.0%	1.5%	9.0%
No Response	0	0	0	0	0	0
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
TOTAL	7	1	12	4	132	156
	4.5%	0.6%	7.7%	2.6%	84.6%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Doctorate

US Citizen	1	1	4	4	242	252
	0.4%	0.4%	1.6%	1.6%	96.0%	100.0%
	100.0%	100.0%	14.8%	80.0%	97.6%	89.4%
Permanent Resident	0	0	7	1	3	11
	0.0%	0.0%	63.6%	9.1%	27.3%	100.0%
	0.0%	0.0%	25.9%	20.0%	1.2%	3.9%
Other Visa	0	0	16	0	2	18
	0.0%	0.0%	88.9%	0.0%	11.1%	100.0%
	0.0%	0.0%	59.3%	0.0%	0.8%	6.4%
No Response	0	0	0	0	1	1
	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
	0.0%	0.0%	0.0%	0.0%	0.4%	0.4%
TOTAL	1	1	27	5	248	282
	0.4%	0.4%	9.6%	1.8%	87.9%	100.0%
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

TABLE F-2

CITIZENSHIP of CHEMISTRY GRADUATES by Degree and Sex
1984 Starting Salary Survey

	SEX												
	Bachelors				Masters				Doctorate				
CITIZENSHIP	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
US Citizen	960	580	1	1,541	86	55	0	141	202	52	0	254	-Count
	62.3%	37.6%	0.1%	100.0%	61.0%	39.0%	0.0%	100.0%	79.5%	20.5%	0.0%	100.0%	-% of Row
	96.5%	97.5%	50.0%	96.8%	85.1%	93.2%	***.*%	88.1%	89.0%	89.7%	***.*%	89.1%	-% of Col
Permanent Resident	23	10	0	33	4	0	0	4	8	3	0	11	
	69.7%	30.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	72.7%	27.3%	0.0%	100.0%	
	2.3%	1.7%	0.0%	2.1%	4.0%	0.0%	***.*%	2.5%	3.5%	5.2%	***.*%	3.9%	
Other Visa	12	5	0	17	11	4	0	15	16	3	0	19	
	70.6%	29.4%	0.0%	100.0%	73.3%	26.7%	0.0%	100.0%	84.2%	15.8%	0.0%	100.0%	
	1.2%	0.8%	0.0%	1.1%	10.9%	6.8%	***.*%	9.4%	7.0%	5.2%	***.*%	6.7%	
No Response	0	0	1	1	0	0	0	0	1	0	0	1	
	0.0%	0.0%	100.0%	100.0%	***.*%	***.*%	***.*%	***.*%	100.0%	0.0%	0.0%	100.0%	
	0.0%	0.0%	50.0%	0.1%	0.0%	0.0%	***.*%	0.0%	0.4%	0.0%	***.*%	0.4%	
TOTAL	995	595	2	1,592	101	59	0	160	227	58	0	285	
	62.5%	37.4%	0.1%	100.0%	63.1%	36.9%	0.0%	100.0%	79.6%	20.4%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE F-3

MINORITY CLASSIFICATION of CHEMISTRY GRADUATES by Degree and Sex
1984 Starting Salary Survey

MINORITY CLASSIFICATION	SEX												
	Bachelors				Masters				Doctorate				
	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
Black	15	17	1	33	6	1	0	7	1	0	0	1	-Count
	45.5%	51.5%	3.0%	100.0%	85.7%	14.3%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	-% of Row
	17.0%	29.3%	50.0%	22.3%	33.3%	16.7%	***.*%	29.2%	3.7%	0.0%	***.*%	2.9%	-% of Col
Hispanic	2	2	0	4	1	0	0	1	1	0	0	1	
	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	2.3%	3.4%	0.0%	2.7%	5.6%	0.0%	***.*%	4.2%	3.7%	0.0%	***.*%	2.9%	
Asian	56	25	1	82	9	3	0	12	20	7	0	27	
	68.3%	30.5%	1.2%	100.0%	75.0%	25.0%	0.0%	100.0%	74.1%	25.9%	0.0%	100.0%	
	63.6%	43.1%	50.0%	55.4%	50.0%	50.0%	***.*%	50.0%	74.1%	100.0%	***.*%	79.4%	
American Indian	15	14	0	29	2	2	0	4	5	0	0	5	
	51.7%	48.3%	0.0%	100.0%	50.0%	50.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	17.0%	24.1%	0.0%	19.6%	11.1%	33.3%	***.*%	16.7%	18.5%	0.0%	***.*%	14.7%	
TOTAL	88	58	2	148	18	6	0	24	27	7	0	34	
	59.5%	39.2%	1.4%	100.0%	75.0%	25.0%	0.0%	100.0%	79.4%	20.6%	0.0%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	***.*%	100.0%	

TABLE F-4

ETHNIC CLASSIFICATION and CITIZENSHIP or VISA STATUS of CHEMICAL ENGINEERS by Degree
1984 Starting Salary Survey

CITIZENSHIP	Black	Hispanic	Asian	American Indian	White	TOTAL	
	ETHNICITY						
	Bachelors						
US Citizen	19	1	46	21	1,106	1,193	-Count
	1.6%	0.1%	3.9%	1.8%	92.7%	100.0%	-% of Row
	95.0%	100.0%	80.7%	87.5%	98.9%	97.8%	-% of Col
Permanent Resident	1	0	8	3	8	20	
	5.0%	0.0%	40.0%	15.0%	40.0%	100.0%	
	5.0%	0.0%	14.0%	12.5%	0.7%	1.6%	
Other Visa	0	0	3	0	3	6	
	0.0%	0.0%	50.0%	0.0%	50.0%	100.0%	
	0.0%	0.0%	5.3%	0.0%	0.3%	0.5%	
No Response	0	0	0	0	1	1	
	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%	
	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	
TOTAL	20	1	57	24	1,118	1,220	
	1.6%	0.1%	4.7%	2.0%	91.6%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	Masters						
US Citizen	2	1	7	1	122	133	
	1.5%	0.8%	5.3%	0.8%	91.7%	100.0%	
	100.0%	100.0%	25.9%	50.0%	93.8%	82.1%	
Permanent Resident	0	0	5	1	1	7	
	0.0%	0.0%	71.4%	14.3%	14.3%	100.0%	
	0.0%	0.0%	18.5%	50.0%	0.8%	4.3%	
Other Visa	0	0	15	0	7	22	
	0.0%	0.0%	68.2%	0.0%	31.8%	100.0%	
	0.0%	0.0%	55.6%	0.0%	5.4%	13.6%	
No Response	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
TOTAL	2	1	27	2	130	162	
	1.2%	0.6%	16.7%	1.2%	80.2%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	
	Doctorate						
US Citizen	0	0	2	0	32	34	
	0.0%	0.0%	5.9%	0.0%	94.1%	100.0%	
	***.*%	***.*%	18.2%	***.*%	100.0%	79.1%	
Permanent Resident	0	0	3	0	0	3	
	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	
	***.*%	***.*%	27.3%	***.*%	0.0%	7.0%	
Other Visa	0	0	6	0	0	6	
	0.0%	0.0%	100.0%	0.0%	0.0%	100.0%	
	***.*%	***.*%	54.5%	***.*%	0.0%	14.0%	
No Response	0	0	0	0	0	0	
	***.*%	***.*%	***.*%	***.*%	***.*%	***.*%	
	***.*%	***.*%	0.0%	***.*%	0.0%	0.0%	
TOTAL	0	0	11	0	32	43	
	0.0%	0.0%	25.6%	0.0%	74.4%	100.0%	
	***.*%	***.*%	100.0%	***.*%	100.0%	100.0%	

TABLE F-5

CITIZENSHIP of CHEMICAL ENGINEERING GRADUATES by Degree and Sex
1984 Starting Salary Survey

	SEX												
	Bachelors				Masters				Doctorate				
CITIZENSHIP	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	Men	Women	No Response	TOTAL	
US Citizen	839	362	3	1,204	109	27	0	136	32	2	0	34	-Count
	69.7%	30.1%	0.2%	100.0%	80.1%	19.9%	0.0%	100.0%	94.1%	5.9%	0.0%	100.0%	-% of Row
	97.4%	98.6%	100.0%	97.8%	77.9%	93.1%	***.*%	80.5%	78.0%	100.0%	0.0%	77.3%	-% of Col
Permanent Resident	16	4	0	20	5	2	0	7	3	0	0	3	
	80.0%	20.0%	0.0%	100.0%	71.4%	28.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	1.9%	1.1%	0.0%	1.6%	3.6%	6.9%	***.*%	4.1%	7.3%	0.0%	0.0%	6.8%	
Other Visa	5	1	0	6	26	0	0	26	6	0	0	6	
	83.3%	16.7%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	
	0.6%	0.3%	0.0%	0.5%	18.6%	0.0%	***.*%	15.4%	14.6%	0.0%	0.0%	13.6%	
No Response	1	0	0	1	0	0	0	0	0	0	1	1	
	100.0%	0.0%	0.0%	100.0%	***.*%	***.*%	***.*%	***.*%	0.0%	0.0%	100.0%	100.0%	
	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	***.*%	0.0%	0.0%	0.0%	100.0%	2.3%	
TOTAL	861	367	3	1,231	140	29	0	169	41	2	1	44	
	69.9%	29.8%	0.2%	100.0%	82.8%	17.2%	0.0%	100.0%	93.2%	4.5%	2.3%	100.0%	
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	***.*%	100.0%	100.0%	100.0%	100.0%	100.0%	

TABLE F-6

MINORITY CLASSIFICATION of CHEMICAL ENGINEERS GRADUATES by Degree and Sex
1984 Starting Salary Survey

MINORITY CLASSIFICATION	SEX	Bachelors			Masters			Doctorate			
		Men	Women	TOTAL	Men	Women	TOTAL	Men	Women	TOTAL	
Black		8	12	20	1	1	2	0	0	0	-Count
		40.0%	60.0%	100.0%	50.0%	50.0%	100.0%	***.*%	***.*%	***.*%	-% of Row
		13.1%	29.3%	19.6%	4.3%	11.1%	6.3%	0.0%	0.0%	0.0%	-% of Col
Hispanic		1	0	1	0	1	1	0	0	0	
		100.0%	0.0%	100.0%	0.0%	100.0%	100.0%	***.*%	***.*%	***.*%	
		1.6%	0.0%	1.0%	0.0%	11.1%	3.1%	0.0%	0.0%	0.0%	
Asian		36	21	57	22	5	27	10	1	11	
		63.2%	36.8%	100.0%	81.5%	18.5%	100.0%	90.9%	9.1%	100.0%	
		59.0%	51.2%	55.9%	95.7%	55.6%	84.4%	100.0%	100.0%	100.0%	
American Indian		16	8	24	0	2	2	0	0	0	
		66.7%	33.3%	100.0%	0.0%	100.0%	100.0%	***.*%	***.*%	***.*%	
		26.2%	19.5%	23.5%	0.0%	22.2%	6.3%	0.0%	0.0%	0.0%	
TOTAL		61	41	102	23	9	32	10	1	11	
		59.8%	40.2%	100.0%	71.9%	28.1%	100.0%	90.9%	9.1%	100.0%	
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	

American Chemical Society

1155 SIXTEENTH STREET, N.W.
WASHINGTON, D.C. 20036
Phone (202) 872-4534

JOHN K CRUM
Executive Director

Summer 1984

Dear Colleague:

For many years the American Chemical Society has been gathering information about starting salaries in chemistry and chemical engineering, by means of an annual mail survey of both member and non-member graduates. We believe the data gathered has been very useful to chemists and chemical engineers, particularly as they start their careers, and that the publication of such data has a beneficial effect on salary levels. Also, the surveys provide information on the employment status of recent graduates. These surveys by the Society have gained a reputation for reliability and usefulness.

We urge you to participate in this survey as a service to your colleagues and profession. Please take a few minutes now to fill out the enclosed questionnaire. No personal identification is required; the returns should be anonymous.

Please complete as many items in the questionnaire as possible, whether or not you have already accepted employment, and return it as soon as you can. We have enclosed a postage-paid envelope for this purpose.

Preliminary results of this survey will be reported this fall in CHEMICAL AND ENGINEERING NEWS' Careers Issue. A more exhaustive report will be published by the American Chemical Society later in the year.

We thank you for your help and extend our very best wishes for every success in your professional pursuits.

Sincerely yours,

John K Crum

John K Crum

JKC/tyf

Enclosure

AMERICAN CHEMICAL SOCIETY

SURVEY OF STARTING SALARIES AND EMPLOYMENT STATUS OF
1984 CHEMISTRY AND CHEMICAL ENGINEERING GRADUATES

A. Highest degree earned (Check one.): Bachelors 1[ ] Masters 2[ ] Doctorate 3[ ]

B. Field of highest degree (Check one):

Chemical engineering	1[ ]	Organic chemistry	7[ ]
Chemistry, general	2[ ]	Pharmaceutical/medicinal/clinical chemistry	8[ ]
Biochemistry	3[ ]	Physical chemistry	9[ ]
Agricultural/food chemistry	4[ ]	Theoretical chemistry	10[ ]
Analytical chemistry	5[ ]	Polymer/macromolecular chemistry	11[ ]
Inorganic chemistry	6[ ]	Chemistry, other	12[ ]
		Non-chemical	13[ ]

C. Please describe the school that granted your degree: Public . . . 1[ ] Private . . . 2[ ]

D. Geographic Location of school: State _____

E. Number of students:

Less than 1,500	1[ ]	10,000 to 20,000	4[ ]
1,500 to 4,999	2[ ]	Over 20,000	5[ ]
5,000 to 9,999	3[ ]		

F. The highest degree offered by your department is: B.S. . . 1[ ] M.S. . . 2[ ] Ph.D. . 3[ ]

G. Do you plan further advanced studies in fall 1984? (Check one):
Yes, full time 1[ ] Yes, part-time 2[ ] No 3[ ] Go to Question I.

H. Field of further studies (Check one):

Chemistry	1[ ]	Dentistry	8[ ]
Other physical science or math	2[ ]	Pharmacy, pharmacology	9[ ]
Chemical engineering	3[ ]	Business management	10[ ]
Other engineering	4[ ]	Education	11[ ]
Biochemistry	5[ ]	Law	12[ ]
Life science	6[ ]	Social science or humanities	13[ ]
Medicine	7[ ]	Other	14[ ]

I. Age: _____

J. Sex: Male 1[ ] Female 2[ ]

K. Citizenship or visa status (Check one):

U.S. citizen . . 1[ ] U.S. permanent resident visa . . 2[ ] Other visa . . . 3[ ]

L. Racial or ethnic group:

Black (not of Hispanic origin) . . . . . 1[ ]
American Indian or Alaskan Native . . . . . 2[ ]
Asian or Pacific Islander (of Chinese, Japanese, Korean, Filipino, or Subcontinental Indian origin) . . . . . 3[ ]
Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish origin) . . . . . 4[ ]
White (not of Hispanic origin) . . . . . 5[ ]

M. Post-graduation employment status (Check one):

Accepted or continued full-time employment (excluding summer employment):
- in a field of chemistry or chemical engineering . . . . . 1[ ]
- in a field other than chemistry or chemical engineering . . . . . 2[ ]

Accepted a graduate assistantship or a postdoctoral or other fellowship . . . . . 3[ ]

Not employed (or employed part-time or for the summer):
- and seeking full-time employment . . . . . 4[ ]
- and not seeking full-time employment . . . . . 5[ ]

→ Please stop. Return the questionnaire in the envelope provided.

N. Professional or technical work experience prior to graduation (Check one):

Less than 12 months (or none). 1[ ] 12 to 36 months. 2[ ] More than 36 months. 3[ ]

O. How long have you been working for your current employer?

12 months or less. 1[ ] More than 12 months. 2[ ]

P. How many firm offers of employment did you receive in a field of chemistry or chemical engineering? Specify number _____

Q. Employer classification (Check the one category which best describes your employer):

Private industry or business:
- Manufacturing
  - Chemicals . . . . . 1[ ]
  - Coatings . . . . . 2[ ]
  - Food . . . . . 3[ ]
  - Metals, minerals . . . . . 4[ ]
  - Paper . . . . . 5[ ]
  - Petroleum . . . . . 6[ ]
  - Pharmaceuticals, personal care . . . 7[ ]
  - Rubber . . . . . 8[ ]
  - Other manufactures . . . . . 9[ ]
- Non-manufacturing (e.g., mining, utilities, construction, etc.) . . . 10[ ]

University granting a doctorate in
- chemical science . . . . . 11[ ]
- Other college or university . . . . 12[ ]
- High school or other school . . . . 13[ ]
- Federal government (civilians only) 14[ ]
- Military . . . . . 15[ ]
- State and local government . . . . 16[ ]
- Hospital or independent laboratory. 17[ ]
- Other non-profit organization or research institute . . . . . 18[ ]
- Other . . . . . 19[ ]

R. Employers' approximate number of employees:
- Less than 500 . . . . . 1[ ]
- 500 to 2,499 . . . . . 2[ ]
- 2500 to 9,999 . . . . . 3[ ]
- 10,000 to 24,999 . . . . . 4[ ]
- Over 25,000 . . . . . 5[ ]

S. Check the ONE specialty most closely related to your employment:
- Chemical Engineering . . . . . 1[ ]
- Biochemistry . . . . . 2[ ]
- Analytical Chemistry . . . . . 3[ ]
- Inorganic Chemistry . . . . . 4[ ]
- Organic Chemistry . . . . . 5[ ]
- Polymer Chemistry . . . . . 6[ ]
- Non-Chemical . . . . . 7[ ]

T. Annual salary: $ _____ per year

U. Geographic location of employment: State _____

Please return within 7 days to the American Chemical Society, Room 202, 1155 16th Street NW, Washington, DC 20036. Thank You.

Statistical Services
American Chemical Society
Washington, D.C.

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